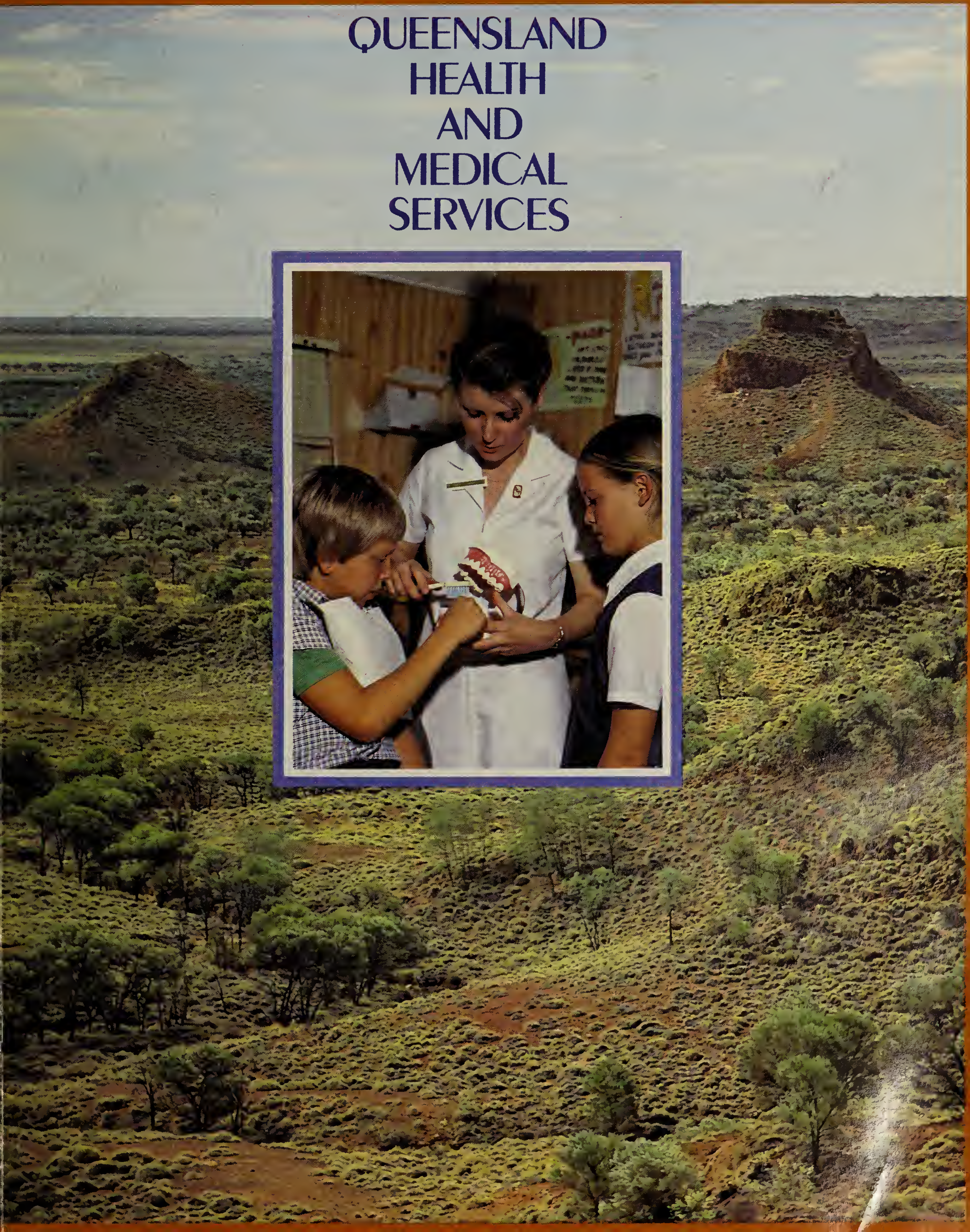
1983

ANNUAL REPORT

QUEENSLAND HEALTH AND MEDICAL SERVICES



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1983

ANNUAL REPORT

OF THE

HEALTH AND MEDICAL SERVICES

OF THE

STATE OF QUEENSLAND

FOR THE

YEAR 1982–83

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CONTENTS

Page

Introductory Remarks and Vital Statistics 1

Medical Administration—

Re-organization within Health and Medical Services 9
Queensland Cancer Registry 9
Register of Congenital Abnormalities 9
Hospital Medical Administration 10
Rationalization of Hospital Services 10
Private Hospitals and Nursing Homes 10
Rehabilitation Services 10
Sterilizing Services 10
Occupational Therapy 11
Physiotherapy 12
Medical Records 12
Pharmacy 12
Nutrition and Dietetics 13

Division of Environmental and Occupational Health—

Section of Epidemiology 16
Section of Drugs and Poisons 22
Section of Food Supervision 24
Section of Environmental Sanitation 29
Occupational Health Unit 31
Sexually Transmissable Diseases 32

Tuberculosis and Chest Diseases Services 35

Division of Health and Medical Physics 45

Division of Child Health—

Maternal and Infant Health Service 47
School Health Services 61

Division of Psychiatric Services 66

Division of Alcohol and Drug Dependence Services 80

Division of Youth Welfare and Guidance 85

Division of Dental Services 87

Division of Geriatrics 92

Flying Surgeon Service 93

Division of Community Medicine 94

Aboriginal Health Programme 98

Aboriginal and Islander Health Advisory Council 103

Division of Laboratory Services—

Laboratory of Microbiology and Pathology 104
Government Chemical Laboratory 120

Division of Health Promotion 134

Legislation 137

Acknowledgments 139

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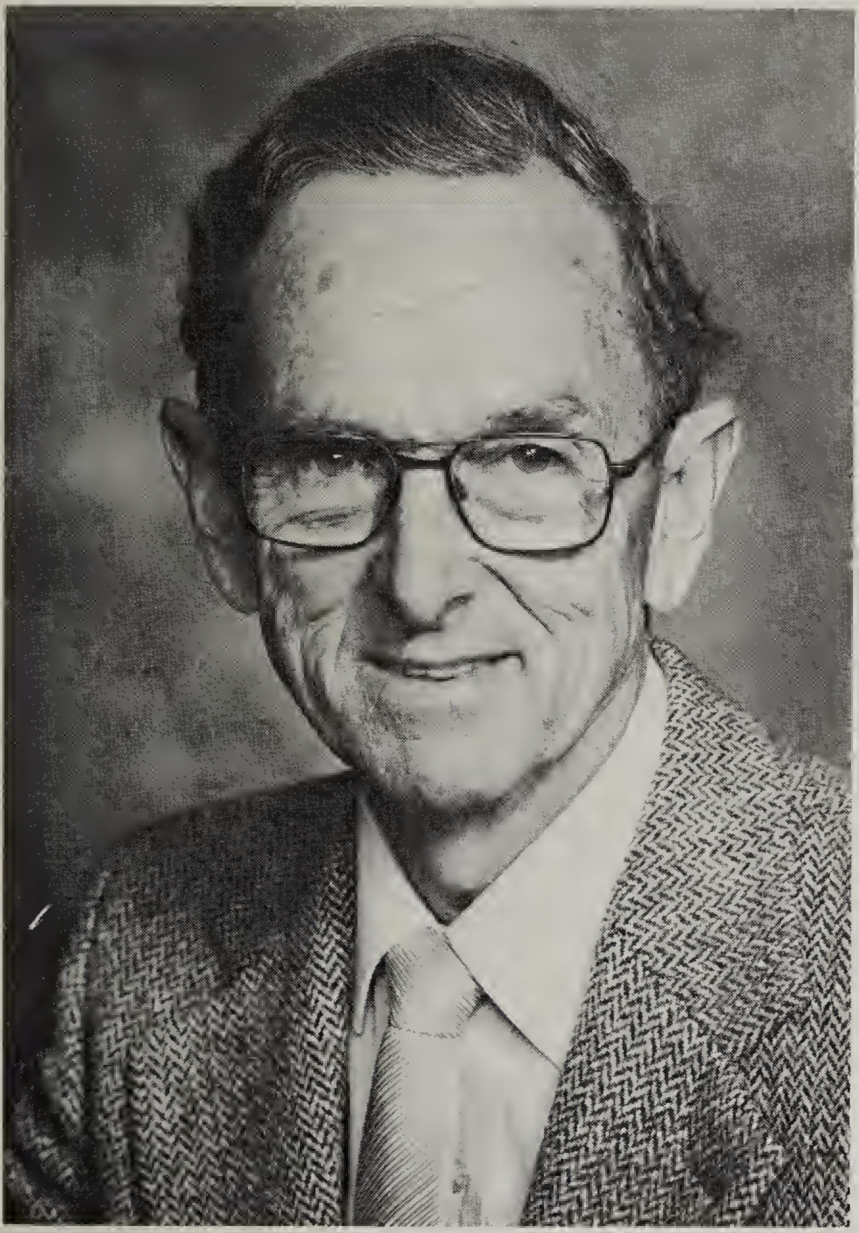
ANNUAL REPORT OF THE DIRECTOR-GENERAL OF HEALTH AND MEDICAL SERVICES 1982–1983

The Honourable the Minister for Health

Sir,—I have the honour to submit for your information the Annual Report of the Health and Medical Services Branch of the Department of Health for the year ended 30th June, 1983.

P. G. LIVINGSTONE
M.B., B.S.(Qld.), M.R.C.P.(Edin.), D.P.H.(Syd.),
F.R.A.C.M.A., F.R.C.P.
Director-General of Health and Medical Services.

INTRODUCTORY REMARKS



Dr Ellis Abrahams was appointed Director of Tuberculosis for Queensland in 1949, a position he held with distinction until his retirement on 2nd July, 1982.

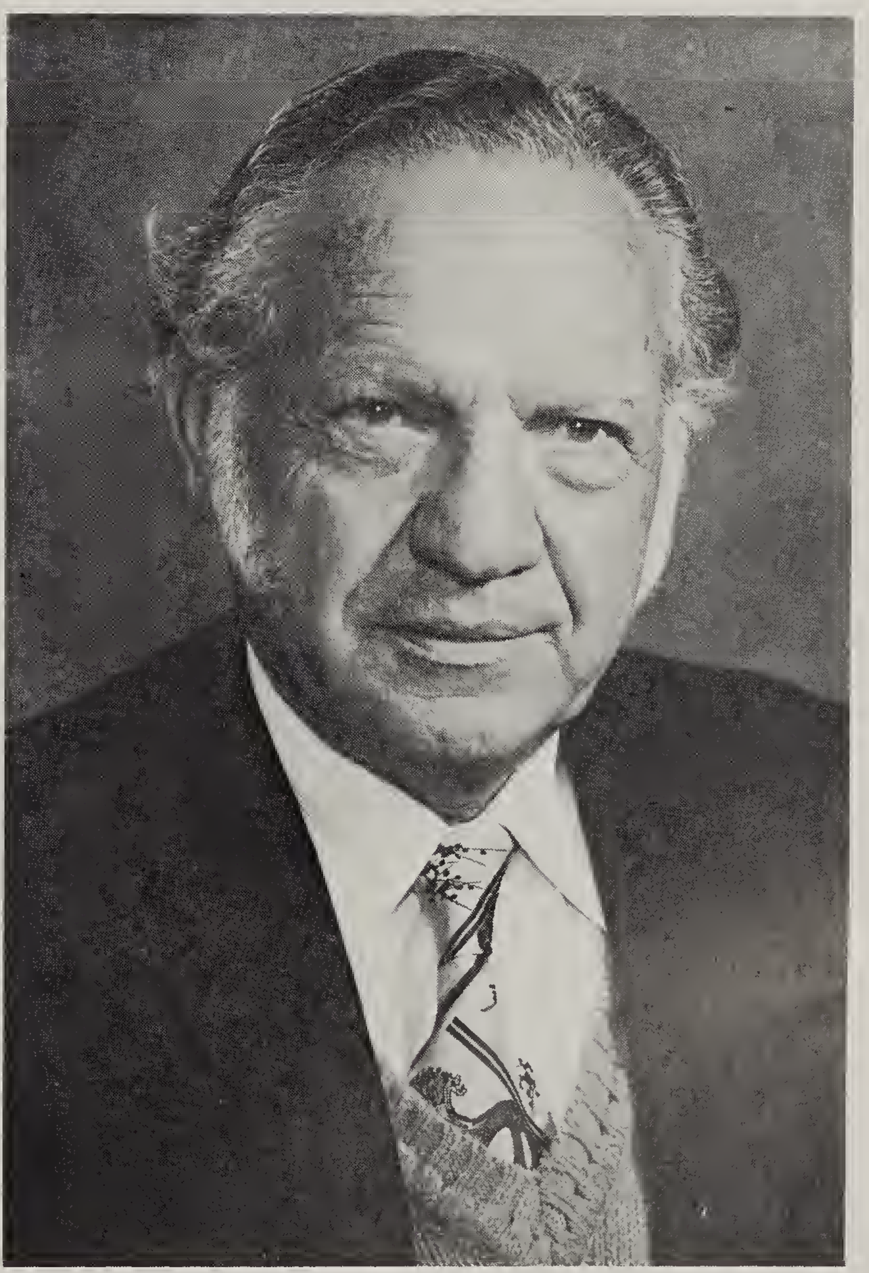
Dr Abrahams graduated in medicine in 1941 from the University of Melbourne and gained his doctorate from that University in 1946. He then did postgraduate study in London and became a Member of the Royal College of Physicians. He was later admitted to Membership of the Royal Australasian College of Physicians and subsequently became a Fellow of both Colleges.

The Tuberculosis Campaign commenced in Australia in the late 1940's with funds provided by the Commonwealth.

Dr Abrahams was responsible for the initiation and consolidation in Queensland of a number of strategies against tuberculosis including the effective use of drug therapy, active case finding in special risk groups, contact screening, skin testing and BCG vaccination of school children and individuals at risk. A compulsory mass miniature radiography survey was commenced in 1959 and continued until 1977. The composition and geographical distribution of the Queensland population created special problems in the management of tuberculosis. The changing nature of the tuberculosis problem in Queensland has required changing strategies. Dr Abrahams has given Queensland a sound basis for the future management of tuberculosis.

Queensland has an unusual problem in tuberculosis management in having a relatively high incidence of infection by atypical mycobacteria. Dr Abrahams drew attention to this and initiated research into this group of organisms. He was the author or co-author of a number of scientific papers on this and related subjects. In 1980, he was invited by the Queensland Society of Health to give the Ellington Oration and gave the second Wunderly Oration at the Australian Tuberculosis Conference in Perth in 1982. He was a member of the National Tuberculosis Advisory Council of Australia.

Dr Abrahams was concerned with the education of medical students and medical practitioners and held consultant positions at the Royal Brisbane, Princess Alexandra and Prince Charles Hospitals. On his retirement he was honoured by appointment as Honorary Consultant Physician at Princess Alexandra and Prince Charles Hospitals.



Dr E. M. Rathus retired from the position of Director of Industrial Medicine on 25th July, 1982, having held the position since February, 1957.

Dr Rathus graduated in Medicine from the University of Cape Town in 1939 and he saw service in the Middle East and Italy during the Second World War. He came to Queensland in 1952 and was appointed Medical Officer, Chest Clinic, which position he held until his appointment as Director of Industrial Medicine.

During the period of his employment, Dr Rathus built up a fine reputation with all those with whom he came in contact—Industry, Union and Government.

Dr Rathus developed three main avenues of interest and influence within the Division of Industry Medicine, namely—pesticides surveillance and control in industry and on the land; the problems of lead absorption and poisoning in industry; and pneumoconiosis in all its aspects as presented by coalworkers, silicosis in mines and industry, and the problem of asbestosis and mesothelioma.

One of his greatest contributions was in the mining industry, and many workers in this field owe their health to actions taken by Dr Rathus.

It was on Dr Rathus' advice following a visit to the United States of America and Canada in 1959, that the radiation health physics section of the Department, now the Division of Health and Medical Physics, was established. Similarly, a section of air pollution control was established on his initiative. This section operated within the Department of Health for some years before eventually being transferred to the Department of Local Government.

Dr Rathus has an international reputation as a scientist and has adressed overseas international conferences on pneumoconiosis held in Bucharest in 1971 and Venezuela in 1978. He was, by invitation, a member of the first international workshop on the epidemiological toxicology of pesticide exposure which was constituted as a Sub-Committee on Pesticides, Permanent Commission and International Association on Occupational Health, and was held in Amsterdam in 1971. He subsequently attended and contributed to the Fifth International Workshop of this Association held in The Hague in 1979.

One of his greatest attributes is his great fund of knowledge in his particular field and his ability to draw on this knowledge at a moment's notice. Because of his expertise and his command of the English language and ready wit, Dr Rathus was sought after as a scientific lecturer and after-dinner speaker.

STAFF

Dr W. J. Smith was appointed Assistant Director-General (Hospitals) on 17th February, 1983.

Dr I. S. Wilkey was appointed Assistant Director-General (Scientific Support Services) on 17th February, 1983.

Dr I. A. Musgrave was appointed Assistant Director-General (Community and Public Health) on 17th February, 1983.

Dr R. A. Ramm was appointed Director, Enviromental and Occupational Health, on 3rd March, 1983.

Dr V. M. O'Hara was appointed Assistant Director (School Health Services), Division of Child Health, on 24th March, 1983.

Dr J. F. McFarlane was appointed Assistant Director (Maternal and Infant Health), Division of Child Health, on 24th March, 1983.

Dr D. A. Smith was appointed Assistant Director (Occupational Health), Division of Enviromental and Occupational Health, on 3rd March, 1983.

Dr D. Kelly was appointed Principal Medical Officer on 24th February, 1983.

Dr A. T. C. Bourke was appointed Senior Medical Officer on 24th February, 1983.

Dr J. S. Richardson was appointed Senior Medical Officer on 24th February, 1983.

Dr G. R. Neville commenced duty as Senior Medical Officer (Occupational Health), Division of Environmental and Occupational Health, on 14th June, 1983.

Dr A. J. Ansford was appointed Director, Laboratory of Microbiology and Pathology, on 24th February, 1983.

Mr H. R. M. Self retired as Senior Scientist in Charge, Biochemistry Section, Laboratory of Microbiology and Pathology, on 9th April, 1983.

Dr W. J. Mair was appointed Pathologist, Laboratory of Microbiology and Pathology, on 22nd February, 1983.

Dr V. Matchett retired as Medical Superintendent, Wolston Park Hospital, on 24th July, 1982.

Dr I. Atkinson retired as Regional Psychiatrist and Medical Superintendent, Mossman Hall, Charters Towers, on 27th May, 1983.

Mr R. G. Blake retired as Deputy Director, Division of Dental Services, on 30th July, 1983.

Mr P. C. Comiskey commenced duty as Deputy Director, Division of Dental Services, on 19th November, 1982.

Dr L. J. Mykyta resigned as Director, Division of Geriatrics, on 4th February, 1983.

Dr M. H. Bolton was appointed Director, Alcohol and Drug Dependence Service, on 22nd July, 1982.

Dr J. R. Clarke was appointed Deputy Director (Treatment), Alcohol and Drug Dependence Service, on 2nd April, 1983.

Dr K. Burns commenced duty as Medical Officer in Charge, Community Health Services Centre, Rockhampton, on 1st February, 1983.

Dr J. M. Newland commenced duty as Medical Officer in Charge, Community Health Services Centre, Cairns, on 5th April, 1983.

Miss J. Corrigan commenced duty as Advisor in Physiotherapy on 14th February, 1983.

Dr E. M. Nicholson, Medical Officer, Division of Child Health, was awarded a Public Health Travelling Fellowship to undertake a study tour of the United Kingdom, Europe, United States of America and Canada to study the changing face of community paediatrics in growth and developmental assessment and the pre-school child and his family today.

Dr S. Cerutti held the position of Medical Officer (Anaesthetist), Flying Surgeon Service, Roma from 10th July, 1982 to 31st December, 1982.

Dr M. Petrovic commenced duty as Medical Officer (Anaesthetist), Flying Surgeon Service, Roma, on 17th January, 1983.

Dr C. M. Lilley was appointed Medical Officer (Anaesthetist), Flying Surgeon Service, Longreach, on 3rd January, 1983.

CHILD AND ADOLESCENT PSYCHIATRY IN QUEENSLAND

In 1959, "the Division of Welfare and Guidance" came into existence with the completion of a Guidance Clinic at 30 Mary Street, Brisbane, in a building previously called the Queensland Hotel. The Clinic occupied approximately one-half of the building, its neighbours being the Department of Mental Hygiene and the Psychiatric Clinic. The building had been well adapted to the purposes of the Clinic by the Department of Public Works. Alterations were effected carefully, and rooms tastefully painted and furnished.

In August, 1959, Dr B. J. Phillips (who had been in charge of Child Guidance Clinics and Clinics for Delinquent Youth in Sydney) was appointed Senior Medical Director. Within the first year, the staff of the Division was expanded to include two full-time psychiatrists, three part-time medical officers, four clinical psychologists, and five social workers, in addition to child guidance nurses, clerks typists and a library assistant. Part of this Staff Establishment was earmarked to work in a planned "Youth Rehabilitation Hospital". Renovation and conversion of the old Wilson Opthalmic Youth Hostel at Windsor was commenced for this purpose.

Before the Second World War, Child Guidance was cared for in Queensland (and as far as the medical profession was concerned) by general practitioners, paediatricians, and adult psychiatrists. During the War, a Child Guidance Clinic was opened at the Children's Hospital and child psychiatric services were also provided at the Psychiatric Clinic. However, these Clinics were not sufficient for the size of the problem, hence evolving the Division of Welfare and Guidance. The clinics and hospitals to be used by the Division were designed for the diagnosis and treatment of emotional and behaviour disorders of children and adolescents. They were to offer centres where doctors, clergymen, parents or any other person concerned with the care of children could consult an expert for advice on their problems.

The planning of the Wilson Youth Rehabilitation Hospital (the former Wilson Ophthalmic Youth Hostel) was completed and approved during the first year of the Division's operations. On 5th July, 1961, the Hospital was opened. It was intended as a unit for treating as both outpatients and inpatients delinquent children with mental, nervous and personality disorders.

The Hospital was opened with a Children's Court and Court Clinic, and inpatient accommodation for about 35 boys. Inpatient care for girls was already catered for by three Church homes.

Children were referred to the Hospital from a variety of sources, a large number being referred by the Children's Services Department and the Children's Court. It was also particularly pointed out in reports of the time, that private individuals sought out outpatient treatment for their children at Wilson Hospital.

In 1964, 244 boys were admitted as inpatients; the average length of stay was 42 days; and the daily average number in the Hospital was 29. During that year, a new remand section was built at the Hospital where children were remanded in custody for psychiatric assessment. In 1972, a girls' section of the Wilson Hospital was opened following the closure of Karrala House, Ipswich, which had been a centre for delinquent girls.

During 1966, the administrative responsibility for inpatient care and custody of the boys in the Hospital was transferred to Children's Services Department. The Division of Welfare and Guidance, however, remained responsible for the clinical care and treatment. The dual responsibility for the operation of the hospital has continued, but in the preceding decade particularly, changing professional and departmental perspectives, changing referral patterns, and an ever-increasing complexity of incompatible functions performed at the hospital made necessary a comprehensive review of its operations. The outcome has been the withdrawal of the Division's professional staff from the residential programme at the hospital during 1983. The centre has been converted and renamed the Sir Leslie Wilson Youth Hostel. It is administered entirely by the Department of Children's Services. The continuing role of the staff of the Division in co-operation with the Department of Children's Services will be in consultation and assessment.

With the changed role of the Division at the Sir Leslie Wilson Youth Hostel, it is necessary to redesign and relocate the services to the Children's Court and in forensic child and adolescence psychiatry. This Court Clinic and forensic service is to be relocated in premises not too distant from the new Children's Court. The service will be expanded to a fully consultant service and will offer some outpatient treatment facilities.

A teaching role was a primal and prominent feature of the Division's activities. Child psychiatry 25 years ago was a virtually unheard of specialty. Some of the staff of the Division had had little previous experience in Child Guidance work. Training schemes of lectures, case demonstrations and discussions were introduced in the first year of operation for Division staff, senior psychology students, social studies students, kindergarten and remedial education students, and nurses from the School Health Services. Teaching by Division officers expanded steadily in the early years of operation to include other under-graduate groups and by 1968, post-graduates in psychiatry.

A particular emphasis on post-graduate teaching continued throughout the Division's history. In-service training programmes saw a number of staff complete requirements for the Diploma in Psychological Medicine (Queensland) and the Membership of the Royal Australian and New Zealand College of Psychiatrists. Still others graduated for the Certificate of Accreditation in Child Psychiatry (of the Royal Australian and New Zealand College of Psychiatrists). In 1980, the Division joined the rotational programme for the training of psychiatrists. In 1983, the metropolitan clinics of the Division provide eight placements annually for registrars from the rotational training scheme. Divisional participation continues in the Queensland training scheme for psychiatrists working towards accreditation in Child Psychiatry.

Two decades and a-half ago, general public appreciation and understanding of emotional and behavioural disorders of children and adolescents was extremely limited. However, a number of contemporary events heightened public interest in the subject, and lectures on child guidance topics were delivered to community groups by members of the staff from the outset. Public education has continued in various forms including lectures, group discussions and publications. Youth problems, juvenile delinquency, alcoholism and drug addiction in adolescents, bringing up children, problems in commencing school and sex education, are but some of the subjects of this educational programme.

The Division has been responsible for important pioneering work in child and family psychiatry, in the areas of delinquency, delinquent dyslexia, minimal brain (damage) dysfunction, autism, speech disorders, behaviour problems, intellectual handicap and possibly others. As is the experience of most pioneers, such progress was not without opposition, and the Division has "enjoyed" its share of the conflict in this respect. Those aspects which were opposed, vehemently in some cases, have now received wide acceptance and form the basis of preventive and management programmes employed by a variety of professionals.

From the outset, the Division began to develop an important consultative role in child/family psychiatry and guidance. Initially, services were provided to a number of institutions for delinquent children including Church homes and the Westbrook Farm Home, and later to kindergartens and State Departments of Education and Children's Services, and various other institutions.

In May, 1963, the Toowoomba Child Guidance Clinic was opened at the Toowoomba Hospital in a building which had been renovated for the purpose. In November, 1967, the Townsville Child Guidance Clinic was opened in the grounds of the Townsville General Hospital. Early in the following year, a Regional Director commenced duties in this latter centre. The centre was moved to a new building in 1977 and renamed the Townsville Institute of Child Guidance. Throughout the last decade, new Child Guidance Clinics were opened regularly as follows:—1972—Redcliffe; 1973—Ashgrove; 1973—Yeronga; 1973—Indooroopilly; 1975—Enogerra; 1976—Nundah; 1977—Inala; 1977—Greenslopes; 1978—Woodridge; 1980—Ipswich.

The community child guidance clinics at this time consisted of two child psychiatrists, a psychologist, social worker, speech therapist, child guidance therapist, nurse and stenographer. These clinics developed a close liaison with schools, kindergartens and other institutions for the care of children, and also with general practitioners in the area.

By 1964, staffing accommodation and services provided had overcrowded the Mary Street Centre. It was necessary to find a new home for the Brisbane operation of the Division. In the 1964–65 financial year, a property was acquired at Rogers Street, Spring Hill. This property would provide very much more room and greatly improved facilities. On 6th April, 1966, the Institute of Child Guidance was opened, being established as a hospital under the administration of the North Brisbane Hospitals Board with the Senior Medical Director of the Division as the Medical Superintendent of the Institute. Its primary purpose was to supply a child psychiatry service in close association with the Children's Hospital, replacing the temporary Child Guidance Clinic at the Children's Hospital. Outpatient and day hospital facilities were provided initially.

It was soon found that the day hospital treatment programme was very successful, particularly for those children who were unmanageable by outpatient methods. The Institute also gave a consultant service in child psychiatry to the Royal Brisbane Hospital generally and to the Children's Hospital.

By 1975, a special "adolescent clinic" for the treatment, investigation and research into teenage problems had been developed at the Institute. Besides general child guidance services, there was also a "cerebral function clinic" established within the Institute, which provided for the investigation of the psychiatric phenomena associated with brain injury and disease. Electroencephalographic tests had been performed in the Mary Street Clinic since 1962. This function was transferred to an E.E.G. Department established in the Institute in 1976. A significantly high incidence of abnormal tracings was found in children attending the clinics.

In the financial year 1972–73, the Division of Youth Welfare and Guidance, in co-operation with the Education Department (chiefly in the section of Guidance and Special Education), established a special school at Tennyson for the treatment of emotionally and behaviourally disturbed children. The aim of this school was to rehabilitate disturbed children sufficiently to allow them to return to their own class in their own school. The psychiatrists of the Division and the teachers of the school co-operated in the treatment, training and teaching of these children with encouraging results.

Significant progress has been made recently towards providing a network of services to large areas of the State. At approximate intervals of 3 months, consultant child psychiatrists and psychologists visit various country centres. Regular visits are now made to Longreach, Rockhampton, Mount Isa and Cairns (and in the near future, Roma), in conjunction with the local Hospitals Boards. In co-operation with the Division of Community Medicine, the Medical Director of the Toowoomba Clinic visits other centres in the south-west including Warwick, Charleville and Goondiwindi. During each visit of several days, the visiting staff not only assess and consult on the cases of referred children and adolescents but also liaise with professionals in the area. This liaison builds up local expertise to assist in the interim management of problems, and data collected on new cases, in preparation for the specialist's next visit. Local professionals are also assisted in developing skills for handling problems met within their everyday work.

The final event to record in the history of the Division of Youth Welfare and Guidance is very significant. On 1st June, 1983, the Barrett Adolescent Centre, Gailes, was opened. This unit was established in association with the Division of Psychiatric Services in refurbished premises in the Wolston Park Hospital/Barrett Psychiatry Centre Complex. It consists of an inpatient and a day patient unit, with associated special school, and extension of outpatient services. The Centre's programme is to provide the best possible assessment and treatment of psychiatrically disturbed alolescents in an environment which provides a lifestyle which is as normal as possible in a therapeutic milieu.

The Adolescent Clinic in the Institute at Spring Hill fills an important role in the management of psychiatric disorders in the young and mid-adolescent. The work of this Clinic will be closely integrated with that of the Barrett Adolescent Centre. Both the Clinic and the Centre have adapted the model of a multi-disciplinary team approach, headed by a consultant psychiatrist. By means of this more comprehensive adolescent psychiatric service, and the more extensive use of family assessment and therapy, it is hoped that the earlier intervention in adolescent problems may in some instances lessen the risk of disturbed young people coming into conflict with the law, as an expression of their emotional and behavioural disturbance.

TROPICAL PUBLIC HEALTH

Particular public health problems occur in coastal Queensland due to the wet tropical environment and the agricultural nature of many industries. The possibility of the establishment of many tropical diseases prevalent in South-East Asia is always present.

Dengue Fever

Although 133 notifications of suspected dengue fever cases were received in 1982–83, only 46 cases were able to be confirmed by serological methods. None were detected at all in Cairns or Townsville; the prolonged drought could have been a factor in this. Since October, 1982, there have been only two suspected cases. These occurred in April, 1983, one at Kingaroy and one near Rockhampton. When these facts are compared with 474 serologically proven cases in 1981–1982, it can be seen that the dengue fever epidemic has waned. It is believed that the community consciousness raised by the extensive media campaign in late 1982 would have been a major factor in blocking further transmission of the disease by mosquitoes. The incidence patterns of the significant tropical infections transmitted by insects in Queensland over the last 3 financial years are given in Table 1.

TABLE 1

INCIDENCE PATTERNS OF SOME TROPICAL DISEASES IN QUEENSLAND TRANSMITTED BY INSECT VECTORS

The results of the surveillance patterns for the last 3 financial years are summarized below:—

Disease	Vector	1982–83		1981–82		1980–81		1979–80	
		Q	O	Q	O	Q	O	Q	O
Epidemic* polyarthritis (Ross River Virus)	Mosquito	386	15	387	117	364	38	514	26
Dengue Fever* (Dengue Virus) ..	Mosquito	46	16	474	20	3	3	3	17
Sindbis* (Virus)	Mosquito	0	0	1	1	1	0	2	0
Kunjin* (Virus)	Mosquito	6	0	8	0	..	..	..	..
Kokabera* (Virus)	Mosquito	1	0	0	0	..	..	..	..
Viral Encephalitis (Group B arbovirus)	Mosquito	0	1	2	0	1	1	0	0
Malaria† (protozoan parasite) ..	Mosquito	0	239	4	168	1	192	2	190
North Queensland* Tick Typhus (Rickettsia)	Tick	6	1	9	0	2	0	8	0

* Laboratory data.

† Notification of Malaria—see other tables for data.

NOTE.—The cases marked Q represent cases of the disease contracted in Queensland, while those marked O represent cases contracted outside Queensland.

Encephalitis

Co-operation has continued with the Commonwealth on the factors conducive to the introduction of the viruses conveyed by water birds and transmitted by mosquitoes. Twelve cases of encephalitis of all types were notified in 1982–83. At least half of the cases were considered to be of viral origins. The Australian Encephalitis Programme has been extended in North Queensland by the attachment of an entomologist to the Queensland Institute of Medical Research for the investigation of new and proposed bodies of water in North Queensland. This officer has had major involvement with the Townsville City Council on its mosquito control programme, and in the assessment of the potential for outbreaks by the surveillance of "sentinal" flocks.

A case of primary amoebic meningo encephalitis occurred in a 10-month-old boy, a resident of Charters Towers. The source of the infection was water drawn from the town supply. This patient is the second confirmed case in Queensland. The first case which responded to treatment occurred in a 14-year-old boy from Mount Morgan in 1971.

Meningitis

Nearly half of the 40 cases of meningitis were viral. One was caused by the protozoan *Naegleria fowleri*, the remainder being caused by bacteria.

Cholera

Five cholera incidents have occurred in Queensland. The first incident of 1977 involved a 56-year-old debilitated lady who contracted her infection from the reticulated water supply of Beenleigh. The source of the contamination was the Albert River. In 1980, a two-and-a-half-year-old boy contracted cholera after swimming in the Logan River near Beaudesert.

The three other incidents occurred in the first quarter of 1983. In Rockhampton, a 32-year-old debilitated male was thought to have acquired his infection after consuming fresh lettuce which had been spray-irrigated with creek water containing the cholera vibrio. A 21-month-old male contracted the disease in Mount Morgan. The source of his infection was not identified. The last incident occurred on a property near Beaudesert. A 3½-year-old male became ill after swimming in the Logan River on the outskirts of Beaudesert.

The cholera organism was first recovered from the Albert and Logan Rivers during the 1977 incident. Since then it has been detected on at least one occasion in the following river systems:—Brisbane, Condamine, North Pine, Eight Mile Creek (Bajool), Boyne, Mary, Coomera, Stuart and Mackenzie. During the third incident, the following creeks in Rockhampton were found to contain the cholera vibrio:—Limestone, Ramsey and Lion. Water, drawn from the first creek and used to spray-irrigate lettuces, was thought to have been the source of infection in the Rockhampton incident.

Leprosy

During the year eight new cases of leprosy were notified. Two occurred in children, an Aboriginal boy and a Vietnamese girl. Of the remainder, three were Aborigines, one a Torres Strait Islander and two Australian caucasians.

Other Infections

It should be noted that the traditional tropical infections of leptospirosis (11 cases notified; 67 cases were identified in 16 Local Authority areas), Q fever (174 cases notified) and epidemic polyarthritis (Ross River Fever) (386 cases diagnosed serologically) have continued at an even level. The first two had major relationships with employment.

Most cases of leptospirosis were reported in Brisbane, Cairns and Toowoomba. Most worked in either the meat or farming industries and all were males. Q fever was identified in 145 cases and occurred in 31 Local Authority areas including Ipswich which had the highest incidence. Over 60 per cent of cases derived from the farming and meat industries, and most were in males. Awareness of these two infections has been fostered in the butchering and agricultural trades. Five cases of brucellosis were reported, three of which occurred in Brisbane and two in Townsville. Two were employed in the meat industry.

High incidence rates of epidemic polyarthritis occurred in Cairns, Townsville, Mackay and Rockhampton, some of which may have been mistaken clinically for dengue fever. The transmission of this virus infection by day biting, bush breeding mosquitoes makes it difficult to combat in a wet season, and this Department has attempted to give continuing publicity to the need for the population at large to protect itself from these mosquitoes by suitable clothing and repellants.

There were two cases of Bancroftian filariasis, most likely contracted in Papua New Guinea. Murine scrub and typhus are enzootic in part of Queensland, but infections are uncommon. The latter two pose some risk for troops engaged in military operations in enzootic areas.

The Department of Health is conscious that the potential for the introduction of new and old diseases will continue. It is proposed to formalize a vector control unit for North Queensland to monitor the environmental factors which may facilitate any outbreak, to liaise with Local Authorities and other relevant groups on control procedures, and to act as an initial response team when problem areas are detected.

State Departmental officers have collaborated with the Commonwealth Department of Health by acting as quarantine officers in the State. It has not been possible in developed countries such as the United States of America to eradicate rabies or plague once introduced. As both these diseases are present in countries to the North of Australia extreme vigilance is necessary.

As a number of other rare and self-limiting arbovirus infections have been detected by the routine surveillance of serum, the Department of Health will continue to monitor serum of patients with infectious diseases to detect the presence of unusual conditions. This activity enabled us to predict the recent outbreak of dengue fever and to monitor its progress and its recent decline. The value of such monitoring as an "early warning system" has been amply demonstrated.

Malaria

There is continual challenge by imported cases of malaria. Whenever transmission of malaria occurs within Queensland, counter measures including focal residual spraying with DDT to block further transmission by mosquitoes is undertaken. A recent increase in incidence of imported malaria cases has been observed. Other significant vector-borne diseases are also in Table 1.

The upward trend in incidence of malaria cases notified has resumed despite a downturn in 1981. (Table 2).

TABLE 2

QUEENSLAND MALARIA CASES 1975–1982

Species	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
P. Vivax	55	51	60	44	94	169	113	143
P. Falciparum	9	3	12	12	61	30	43	79
P. Falciparum and *P. Vivax*	0	0	0	2	3	0	1	3
P. Malariae	0	0	0	2	1	0	1	1
P. Ovale	0	0	1	0	0	0	1	0
Unknown	1	2	0	0	0	0	1	1
Totals	65	56	73	60	159	199	160	227

There has been a marked increase in the number of cases of *falciparum* malaria, as well as a large increase in the number of cases of *vivax* malaria.

In 1982, the total number of malaria cases notified in Queensland was 227 (Table 3). This is 67 more cases than the previous year. *Falciparum* malaria accounted for 79 cases (up by 36 from 1981). *Vivax* malaria occurred in 143 cases (up by 30 from 1981). A large part of the increase in notifications was attributable to visitors to Australia from Malarious places, notably Papua New Guinea. The latter were represented by 67 cases in 1982 compared with 32 cases in 1981 (Table 4). There were 106 cases of malaria notified in visitors to Australia in 1982.

TABLE 3

QUEENSLAND MALARIA CASES 1982

Species	Where Contracted				Groups of Special Significance*		
	P.N.G.	S.E. Asia	Elsewhere	Totals	T.S.I.†	Vietnamese	P.N.G.‡
P. Vivax	101	3	39	143	3	5	24
P. Falciparum	60	1	18	79	9	0	39
P. Falciparum and *P. Vivax*	3	0	0	3	0	0	2
P. Malariae	1	0	0	1	0	0	1
P. Ovale	0	0	0	0	0	0	0
Unknown	1	0	0	1	0	0	1
Totals	166	4	57	227	12	5	67

* Included in the total number of cases (227).

† Torres Strait Islanders.

‡ Residents of Papua New Guinea.

TABLE 4
CASES OF MALARIA ACCORDING TO RESIDENTIAL FACTORS

——	1979	1980	1981	1982
Residents in Australia ..	..	..	..	..
Australian Aborigines and Torres Strait Islanders ..	28	8	2	12
Other Natural-born Australians and Euro-migrants	88	89	92	109
Sub-Total	116	97	94	121
Visitors to Australia and migrants from malarious places				
Vietnamese	10	53	5	5
Papua New Guineans ..	15	23	32	67
Other	18	26	29	34
Sub-Total	43	102	66	106
Total	159	199	160	227

Trends in notification of malaria in persons normally resident in Australia, or immigrants from European countries where malaria no longer exists, also reveal an increase. There were 121 cases of malaria notified in natural born Australian residents and migrants from European countries in 1982. Part of this increase occurred in Torres Strait Islanders who are in close contact with people in Papua New Guinea.

There has been an acceleration in the increase in notifications of cases in Papua New Guineans, indicating an increasing risk of introduction of malaria into Australia via the Torres Strait (Table 4). This risk is heightened by the fact that Papua New Guineans usually possess some level of immunity which often suppresses overt symptoms of the disease, making detection difficult. Many of the cases were detected as a result of blood film screening.

The area of Queensland north of 19°s latitude is receptive to malaria on account of the presence of suitable mosquito vectors. In that area in 1979, there were 55 notified cases of malaria. The number of malaria cases in subsequent years in the receptive area have been 37, 35 and 95 respectively, which again highlights the continuing risk of re-introduction of malaria to Australia.

In 1982, 223 cases were contracted outside Australia and four cases (three *falciparum* and one *vivax*) in Australia, all at Boigu Island in the Torres Strait. Of the 223 contracted outside Australia, 166 were contracted in Papua New Guinea, 24 in the Solomon Islands, and 33 elsewhere including India, Indonesia, South-East Asia, Africa, Vanuatu and Vietnam.

The four introduced cases were contracted on Boigu Island in May, 1982. The source has not been traced despite intensive investigations. It may reasonably be that the infection was imported by a Papua New Guinean visitor or an Islander returning from a visit to Papua New Guinea. Such visits are common in both directions.

The most serious form of malaria infection is that due to *Plasmodium falciparum*. The majority of cases due to this species notified in Queensland have been contracted in Papua New Guinea. There were 60 cases out of a total of 79 in 1982 (Table 3).

Falciparum malaria cases contracted in Papua New Guinea were generally treated as being chloroquin-resistant.

Once again, the Department alerts the medical profession and public to the need to maintain continuing vigilance regarding the everpresent risk of malaria for persons travelling overseas in tropical countries and to the need to collaborate in preventing re-introduction of malaria into this country. This can best be done by greater public awareness of the dangers posed by malaria to individual travellers and the risk of transmission from actual cases to other persons living in the receptive area of North Queensland. Intending travellers should appreciate the need for prior consultation with a medical practitioner regarding prophylactic measures against malaria. The possibility of overseas travel in malarious areas should always be explored in patients who present with symptoms which could possibly be due to malaria. The Department of Health has published and distributed a detailed booklet on the management of malaria in Queensland which provides up-to-date guidelines for medical practitioners on both clinical and preventive aspects of malaria management relevant to this State. Pamphlets for distribution to the public at large are also available from the Division of Health Promotion.

VITAL STATISTICS

TABLE I
ESTIMATED RESIDENT POPULATION OF AUSTRALIAN STATES AND PERCENTAGE OF AUSTRALIAN POPULATION IN EACH STATE, 30th JUNE, 1972–82

	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania		Australian Capital Territory	Australia
Year	Number ('000)	Per Cent	Number ('000)	Per Cent	Number ('000)	Per Cent	Number ('000)	Per Cent	Number ('000)	Per Cent	Number ('000)	Per Cent	Number ('000)	Number ('000)
1972	4 795.1	36.0	3 661.3	27.5	1 898.5	14.3	1 214.6	9.1	1 082.0	8.1	400.3	3.0	159.8	13 303.7
1973	4 841.9	35.9	3 707.7	27.5	1 952.0	14.5	1 228.5	9.1	1 101.0	8.2	403.1	3.0	173.3	13 504.5
1974	4 894.1	35.7	3 755.7	27.4	2 008.3	14.6	1 241.5	9.0	1 127.6	8.2	406.2	3.0	186.2	13 722.6
1975	4 932.0	35.5	3 787.4	27.3	2 051.4	14.8	1 265.3	9.1	1 154.9	8.3	410.1	3.0	199.0	13 893.0
1976	4 959.6	35.3	3 810.4	27.2	2 092.4	14.9	1 274.1	9.1	1 178.3	8.4	412.3	2.9	207.7	14 033.1
1977	5 001.9	35.2	3 837.4	27.0	2 129.8	15.0	1 286.1	9.1	1 204.4	8.5	415.0	2.9	213.7	14 192.2
1978	5 053.8	35.2	3 863.8	26.9	2 172.0	15.1	1 296.2	9.0	1 227.9	8.6	417.6	2.9	218.0	14 359.3
1979	5 111.1	35.2	3 886.4	26.8	2 214.8	15.3	1 301.1	9.0	1 246.6	8.6	420.8	2.9	220.8	14 515.7
1980	5 171.5	35.2	3 914.3	26.6	2 265.9	15.4	1 308.4	8.9	1 269.1	8.6	423.6	2.9	224.3	14 695.4
1981	5 234.9	35.1	3 946.9	26.4	2 345.2	15.7	1 318.8	8.8	1 300.1	8.7	427.2	2.9	227.6	14 923.3
1982	5 307.9	35.0	3 994.1	26.3	2 419.6	15.9	1 328.7	8.8	1 336.9	8.8	429.8	2.8	231.9	15 178.4

Population

The estimated resident population of Queensland at 30th June, 1982 was 2 419 600. The estimated increase during the previous 12 months was 74 400 of which 22 088 was natural increase. The preliminary estimated resident population of the Brisbane Statistical Division at 30th June, 1981 was 1 086 470, 46.3 per cent of the Queensland total. The resident population density per square kilometre for the Brisbane Statistical Division is 352.75, for the remainder of Queensland 0.73; and for all Queensland is 1.36 persons.

Crude birth, marriage and death rates have been revised from 1976, using the concept of estimated resident population introduced after the 1981 Australian Population Census.

Births

During 1982, births registered in Queensland numbered 40 540, 1 706 more than in 1981.

The crude birth rate per 1 000 mean population rose from 16.6 in 1981 to 16.8 in 1982.

TABLE II
CRUDE BIRTH RATE (PER 1 000 POPULATION)

——	1977	1978	1979	1980	1981	1982
Commonwealth of Australia	15.9	15.6	15.4	15.3	15.8	15.8
Queensland	**16.4**	**15.8**	**15.8**	**15.4**	**16.6**	**16.8**
New South Wales ..	15.6	15.4	15.1	15.4	15.6	15.7
Victoria	15.5	15.2	14.9	14.9	15.1	15.0
South Australia ..	15.0	14.3	14.2	14.1	14.7	14.5
Western Australia ..	17.1	16.7	16.3	16.2	16.9	16.6
Tasmania	16.3	16.3	16.1	15.9	16.8	16.3
New Zealand	17.4	16.4	16.9	16.2	16.3	15.8
United Kingdom ..	11.8	12.3	13.1	13.5	13.1	†
United States of America	15.3	15.3	15.8	15.8	15.9	16.0
Canada	15.5	15.3	15.5	15.4	15.2	15.1

† Not available.

There were 6 756 ex-nuptial births registered in 1982. This represents 16.7 per cent of total births. Approximately 34.1 per cent of the ex-nuptial births were to mothers aged 19 and under.

Marriages

Marriages registered in 1982 totalled 18 928 compared with 18 305 in 1981, the marriage rate being 7.8 per 1 000 mean population. There were 1 825 males and 5 697 females aged under 21 married. Of these 22 males and 525 females were aged under 18.

Deaths

The number of deaths registered in 1982 for Queensland was 18 149, giving a crude death rate of 7.5 per 1 000 mean population. In 1982, the major causes of death were diseases of the heart (33.5 per cent), malignant neoplasms, including neoplasms of the lymphatic and haematopoietic tissue (20.3 per cent) and vascular lesions affecting the central nervous system (11.7 per cent).

In every 100 male deaths, 43 died of heart disease or cerebrovascular lesion, 21 of cancer and 8 of accident. In every 100 female deaths, the respective figures were 49, 19 and 4.

There were 3 maternal deaths registered during 1982.

Table III compares crude death rates for Queensland, other States and some overseas countries from 1977 to 1982.

TABLE III

CRUDE DEATH RATE (PER 1 000 POPULATION)

——	1977	1978	1979	1980	1981	1982
Commonwealth of Australia	7.7	7.6	7.3	7.4	7.3	
Queensland	**7.7**	**7.6**	**7.4**	**7.2**	**7.3**	**7.5**
New South Wales ..	8.1	8.0	7.6	7.8	7.6	
Victoria	7.7	7.5	7.5	7.5	7.4	
South Australia ..	7.6	7.5	7.4	7.3	7.4	
Western Australia ..	6.6	6.3	6.4	6.4	6.1	
Tasmania	7.9	8.0	7.6	8.0	7.8	
New Zealand	8.3	7.9	8.2	8.6	8.0	8.1
United Kingdom ..	11.7	11.9	12.1	11.8	11.8	†
United States of America	8.8	8.8	8.7	8.7	8.7	8.6
Canada	7.2	7.3	7.1	7.2	7.0	6.9

† Not available.

The causes of deaths registered in Queensland are shown in Table V.

Infant Mortality

Infant deaths numbered 432 in 1982. Of these, 177 died during the first day of life and 300 during the first month. The infant mortality rate decreased from 10.9 in 1981 to 10.7 in 1982. The rate for the Brisbane Statistical Division decreased from 10.7 to 9.6, while the rate for the remainder of the State increased from 11.2 to 11.5. Infant mortality rates for Queensland, other States and certain overseas countries are shown in Table IV.

TABLE IV

INFANT MORTALITY RATES (DEATHS UNDER ONE YEAR PER 1 000 LIVEBIRTHS)

——	1977	1978	1979	1980	1981	1982
Commonwealth of Australia	12.5	12.2	11.4	10.7	10.0	
Queensland	**13.7**	**12.9**	**10.8**	**11.3**	**10.9**	**10.7**
New South Wales ..	12.2	12.9	11.4	10.7	9.9	
Victoria	11.0	10.5	11.3	10.2	9.4	
South Australia ..	11.5	12.2	9.0	10.1	8.1	
Western Australia ..	12.2	11.2	12.1	11.6	8.8	
Tasmania	14.7	14.3	14.1	11.7	12.0	
New Zealand	14.2	13.8	12.5	12.9	11.7	11.8
United Kingdom ..	14.1	13.3	12.8	12.0	†	†
United States of America	14.0	13.8	13.0	12.5	†	†
Canada	12.4	12.0	10.9	†	†	†

† Not available.

Diseases of the circulatory system, most of which were degenerative lesions of the heart and central nervous system were responsible for 50 per cent of all deaths in 1981 and in 1982. Numbers of these occur in old people and hence are at present largely unavoidable. However, an increasing number of deaths due to ischaemic heart disease are occurring in middle-aged males. Some of these are preventable because many middle-aged men are overweight and are heavy smokers, both of which are known to increase the probability of death. Cancer accounted for 19.0 per cent of deaths in 1981 and 18.5 per cent of deaths in 1982. Deaths due to motor vehicle traffic accidents numbered 580 in 1981 and 614 in 1982.

TABLE V
SHOWING CAUSES OF DEATHS REGISTERED IN QUEENSLAND

Cause of Death	I.C.D. No.	1981	1982		
		Total	Males	Females	Total
Tuberculosis of Respiratory System	010–012, 1370	13	9	3	12
Tuberculosis, other	013–018, 1371–1374	1	1	..	1
Diphtheria	032	..	..	..	..
Whooping Cough	033	..	..	..	..
Tetanus	037	..	2	1	3
Acute Poliomyelitis	045	..	..	..	..
Measles	055	..	1	1	2
Viral Hepatitis	070	1	3	2	5
Other Infective and Parasitic Diseases	Remainder of 000–139	92	35	33	68
Malignant Neoplasms	140–199	3 270	2 012	1 343	3 355
Neoplasms of Lymphatic and Haematopoietic Tissue	200–208	337	200	122	322
Neoplasms, Benign and Other	210–239	35	15	15	30
Diabetes Mellitus	250	216	109	127	236
Other Endocrine, Nutritional and Metabolic Diseases	240–246, 251–279	74	54	51	105
Anaemias	280–285	34	12	20	32
Other Diseases of Blood and Blood-Forming Organs	286–289	24	17	7	24
Mental Disorders	290–319	159	99	99	198
Paralysis Agitans	3320	56	29	15	44
Other Diseases of Nervous System and Sense Organs	320–331, 3321–3899	150	96	78	174
Hypertensive Disease	401–405	125	76	89	165
Acute Myocardial Infarction	410	3 628	2 273	1 413	3 686
Other Ischaemic Heart Disease	411–414	1 597	923	665	1 588
Cerebrovascular Disease	430–438	2 043	893	1 239	2 132
Other Diseases of Circulatory System	Remainder of 390–459	1 417	690	663	1 353
Influenza	487	6	14	26	40
Pneumonia, All Types	480–486	282	216	186	402
Bronchitis, Emphysema and Asthma	490–493	320	244	113	357
Other Diseases of Respiratory System	Remainder of 460–519	546	569	189	758
Diseases of Oesophagus, Stomach and Duodenum	530–537	105	69	55	124
Appendicitis	540–543	9	4	2	6
Intestinal Obstruction and Hernia	550–553, 560	47	28	39	67
Cirrhosis of Liver	5712, 5715	106	79	22	101
Other Diseases of Digestive System	Remainder of 520–579	240	170	163	333
Nephritis, Nephrotic Syndrome and Nephrosis	580–589	207	109	120	229
Infections of Kidney	590	47	16	33	49
Diseases of Male Genital Organs	600–608	14	10	..	10
Other Diseases of Genito-Urinary System	591–599, 610–629	44	32	35	67
Complications of Pregnancy, Childbirth and the Puerperium	630–676	3	..	3	3
Diseases of Skin and Subcutaneous Tissue	680–709	5	9	5	14
Diseases of Musculoskeletal System and Connective Tissue	710–739	67	38	49	87
Congenital Anomalies	740–759	156	105	97	202
Certain Causes of Perinatal Mortality	760–779	191	104	87	191
Senility without mention of Psychosis	797	20	2	9	11
Symptoms of Ill-Defined Conditions	780–796, 798–799	88	50	26	76
Motor Vehicle Traffic Accidents	810–819	580	485	129	614
Accidental Falls	880–888	145	60	82	142
Accidental Drowning and Submersion	910	72	57	12	69
Other Accidents	Remainder of 800–949	248	254	63	317
Suicide and Self-Inflicted Injury	950–959	303	230	69	299
Homicide and Injury Purposely Inflicted by Other Persons	960–969	48	26	14	40
Other External Causes of Injury	970–999	4	4	2	6
Total from All Causes		17 175	10 533	7 616	18 149

MEDICAL ADMINISTRATION

Deputy Director-General of Health and Medical Services: K. J. DONALD, M.B., B.S.(Qld.), Ph.D.(Qld.), F.R.C.P.A., M.R.C.Path.

Assistant Director-General (Scientific Support Services): I. S. WILKEY, M.B., B.S.(Qld.), F.R.C.P.A.

Assistant Director-General (Hospitals): Dr W. J. SMITH, M.B., B.S.(Qld.)

Assistant Director-General (Community and Public Health): I. A. MUSGRAVE, M.B., B.S.(Qld.), D.T.M. &H.(Syd.)

Principal Medical Officer: D. KELLY, A.M., M.B., B.S.(Qld.), F.R.A.C.G.P., Dip.Ven.(Lond.)

Senior Medical Officer: J. S. RICHARDSON, M.B., B.S.(Melb.), D.P.H.(Syd.), D.Obst.R.C.O.G.

Director of Cancer Registry: I. A. RING, M.B., B.S.(Syd.), M.P.H.(U.S.A.), M.Sc.(U.K.)

Medical Officer (Training): P. L. SWEENEY, M.B., B.S.(Qld.) to 2nd January, 1983 (seconded to Royal Brisbane Hospital from 3rd January, 1983)
D. R. LENNOX, M.B., B.S.(Qld.) from 3rd January, 1983 (on secondment from Royal Brisbane Hospital)

RE-ORGANIZATION WITHIN HEALTH AND MEDICAL SERVICES

In order to improve efficiency, the functions of staff and line/staff relationships in the Health and Medical Services have been re-organized.

The salient feature of the new organizational structure was the creation of three positions of Assistant Director-General, responsible to the Director-General for the medical administrative streams of Community and Public Health; Hospitals; and Scientific Support Services respectively. These positions were created by substitution involving three former senior positions.

The delegated responsibilities of the Assistant Director-General (Community and Public Health) cover the non-hospital services of the Department excluding those relating to Scientific Support Services. These services include Environmental and Occupational Health, Child Health including Maternal and Infant Health and School Health Services, Community Health, Aged Care, Rehabilitation, Physiotherapy, Occupational Therapy, Nutrition and Dietetics, Alcohol and Drug Dependence Service, Aboriginal Health Programme and specialized Public Health Services relating to Tuberculosis, Malaria and Leprosy. Changes in Directorates of these areas were also made to reflect the new organizational structure.

The Community Health Services component embraces the Divisions of Community Medicine, Geriatrics and Rehabilitation, the Alcohol and Drug Dependence Service, each of which retains the position of Director and the Advisers in Physiotherapy, Occupational Therapy and Nutrition and Dietetics.

The former Divisions of Maternal and Child Health and School Health Services were merged to form a new Division of Child Health with a single position of Director.

In place of the Divisions of Public Health Supervision and Industrial Medicine, the new Division of Environmental and Occupational Health has been established under a single Director. No new medical positions were required in the establishment of this new Division.

The Assistant Director-General (Hospitals) has delegated responsibilities in respect of hospital services, and works closely with the Director of Hospitals Administration. A Senior Medical Officer and Advisers in Pharmacy and Sterilizing Services support this position.

The Assistant Director-General (Scientific Support Services) has been given delegated responsibilities in respect to Public Hospital Laboratories and Radiology Departments, Departmental Support Services, viz.: Laboratory of Microbiology and Pathology, Government Chemical Laboratory, Health and Medical Physics, and the Government Medical Officer, Brisbane.

To satisfy the pressing need for more administrative support for Health and Medical Services, two senior administrative positions have been created by substitution of two existing positions. These are an Executive Officer and an Assistant Administration Officer.

The new Executive Officer position provides a senior administrative executive to assist the Director-General. This officer will be responsible for supervision and co-ordination of many administrative matters and for ensuring that action is taken to update administrative arrangements and procedures.

The Medical Officers training in medical administration were rotated in their positions during the year. By means of reciprocal secondment, Dr P. L. Sweeney moved into the role of Registrar, Medical Administration at the Royal Brisbane Hospital, and Dr D. R. Lennox into the role of Medical Officer (Training), Health and Medical Services.

QUEENSLAND CANCER REGISTRY

The Queensland Cancer Registry commenced data collection at the beginning of 1982. Returns of cancer patients are provided by pathology laboratories and from all public and private hospitals and nursing homes in Queensland.

Progress to date has centred on the development of a processing system to enter and check the data. Particular effort is directed to ensuring that the data is both complete and accurate. It is expected that the first report describing the patterns on the incidence and mortality of cancer in Queensland will be available in early 1984.

Cancer Registries vary as far as the inclusion of minor skin cancers are concerned. They have so far been included within the scope of the Queensland Registry, which now has one of the largest sets of data on histologically proven skin cancer in the world. However, skin cancers for which there is no pathology report and no hospital admission are not included. Accordingly, the feasibility of obtaining total incidence data in two separate areas of the State, is being investigated.

The Registry is co-operating with a number of cancer research bodies in projects concerned with the cause and treatment of cancer.

REGISTER OF CONGENITAL ABNORMALITIES

A Register of Congenital Abnormalities has been operating in Queensland since 1st July, 1980. Notification to the Register is voluntary, and is limited to abnormalities detected at or shortly after birth during the period when a child normally remains in hospital with the mother. While the response has been gratifying, it is apparent that not all birth abnormalities are being notified. For example, examination of perinatal death certificates has disclosed children whose birth abnormalities had not been notified to the Register. The resulting incomplete coverage of the Register limits its usefulness. A comprehensive Perinatal Data Collection is being planned which will overcome such deficiencies.

The data from the Register are monitored by the Perinatal Mortality Committee, and quarterly reports of notifications are supplied to participating hospitals.

HOSPITAL MEDICAL ADMINISTRATION

Advising on numerous aspects of the provision and development of public hospital services in Queensland continues to be a large component of the functions of some of the medical officers within the Health and Medical Services Branch. Assessment of medical staffing and equipment requests, participation in the planning processes of hospital capital works projects and advising on relevant industrial, professional and personnel issues in broad terms, encompass the major scope of work in this area.

With the re-organization of the Health and Medical Services Branch and creation of a distinct hospital administration component under the Assistant Director-General (Hospitals), the functions are being progressively concentrated within the duties of the medical officers employed in that area. Previously, hospital duties were dispersed across a number of medical officers, some of whom had responsibilities in other fields. In addition, the Assistant Director-General (Scientific Support Services) and the Director of Child Health have responsibilities for advising on hospital matters relevant to their areas of expertise.

RATIONALIZATION OF HOSPITAL SERVICES

The high and escalating cost of hospital services provides continued emphasis to the function of the Standing Committee on Rationalization of Hospital Services (Metropolitan and Country). The task of this Committee is to recommend how hospital services may be rationalized to provide services of excellent standards through the maximum use of available resources and ensuring the avoidance of wasteful duplications.

To assist in this task, the Committee has formed a number of Working Parties of appropriately qualified and experienced personnel to investigate and report on specific hospital services. Interim reports have recently been received on the subjects of Trauma and Allied Matters (Metropolitan and Near Metropolitan), Maternity Services and Orthopaedic Services. Other services in the process of examination and reporting by Working Parties include—Paediatric Services, Neonatal Services, Wynnum and Moreton Bay Island Services, Acute Inpatient Psychiatric Care in the Metropolitan areas, Anaesthetic Services and Oncology Services.

The scope and impact of recommendations by the Committee may significantly influence the provision of public hospital services throughout the State to the benefit of all Queensland residents.

PRIVATE HOSPITALS AND NURSING HOMES

During 1982–83, 56 inspections were carried out in private hospitals accommodating 3 776 patients and 151 inspections of nursing homes (8 181 beds) were performed. These inspections are designed to ensure that adequate care and supervision are provided to the patients and a satisfactory standard of cleanliness is provided with maintenance of the buildings to prevent patient hazards.

Four new nursing homes were erected in this period and an extension of 30 beds was added to an existing home. An additional 258 beds were licensed because of these new nursing homes.

A new 60-bed private hospital was licensed at Redcliffe, and extensions providing for an additional 27 beds were added to two hospitals.

The Co-ordinating Committee on Private Hospitals has, in this financial year, recommended that a 50-bed hospital be erected at Koralbyn Valley.

REHABILITATION SERVICES

Director of Rehabilitation Services: Dr P. H. HOPKINS, F.R.C.S.(E), F.R.A.C.S., F.A.C.R.M.

During 1983, medical rehabilitation and services for the disabled continued to develop. A milestone was the commencement of the new forty (40) bed Spinal Injuries Unit at Princess Alexandra Hospital. A rehabilitation councillor was appointed to Princess Alexandra Hospital as a pilot project. This position is concerned with the vocational resettlement of patients with continuing disability. During the year the building of a Young Disabled Living Unit was approved. This unit will be built as an annexe to the proposed Bald Hills Hospital. It will operate as a nursing home with special design features. The general principle is to foster maximum privacy and independence. The unique aspect of this unit among State nursing homes is that the accommodation is for younger disabled adults as distinct from the geriatric age group.

An interdepartmental committee on special equipment for severely disabled children—Special Schools has been working during this year. It is concerned with basic school furniture for disabled children and also with purpose-built seat inserts for wheelchairs and pushchairs. The Seating Clinic at the Royal Childrens Hospital is closely involved in this work, and some positive outcomes have been achieved. Funds from the Shepard Project have partially supported this work.

Scholarships for training in Orthotics and Prosthetics have been awarded. An orthotist from the Royal Brisbane Hospital and one from the Princess Alexandra Hospital have now been nominated for these scholarships to attend the Lincoln Institute for post-graduate studies in orthotics and prosthetics commencing in 1984.

A meeting of Directors, Rehabilitation Services (or their equivalents) from each State or Territory was held in Brisbane in November, 1982. The agenda of this meeting was Rehabilitation Engineering and Medical Rehabilitation Units.

The Queensland Consultative on Rehabilitation has continued its meetings during this last year. The Committee receives the close co-operation of the Welfare Department's Disabled Persons Service. The Chairman has been attending the Disabled Consumer's meetings organized by that Service to discuss the issues relevant to disabled people. The Committee has a number of International Year of Disabled Persons reports to consider and follow up. Subcommittees on Vocational Rehabilitation, Access, Accommodation/Attendant Care operate in relation to the Committee. The Committee hopes during the coming year to establish more contact with regional and country groups. This year the National Advisory Council for the Handicapped convened a meeting for all State Advisory and Consultative Committees on the Disabled in Canberra. The meeting allowed an exchange of views and information between State Committees and for the National Advisory Council for the Handicapped to report on its current concerns.

STERILIZING SERVICES

Adviser in Sterilizing Services: Mr D. W. FRIEND, B.Sc., S.T.C.

GENERAL

The Adviser in Sterilizing Services continues to oversee improvements in sterilizing services in Queensland public hospitals occasioned by acquisition of modern sterilizers, updating or construction of Central Sterilizing Service Departments, control of the types of disinfectants approved for in-hospital use and education of personnel involved in sterilization services. Close liaison is maintained with relevant Departmental, hospital and supply authorities in regard to maintenance of adequate procedural and equipment standards.

HOSPITAL VISITS AND EDUCATION

The Adviser has visited almost all Queensland public hospitals and as appropriate, discussed solutions to problems in sterilizing services with local staff, monitored sterilizer operation and undertaken testing to ensure sterilizing conditions are attained by the equipment installed. During each hospital visit, a standard lecture is delivered covering theoretical and practical aspects of hospital sterilization and the use and limitations of disinfectants.

EQUIPMENT

Several new items of sterilizing and associated equipment have been installed in hospitals during the year. Automatic cycling features of steam sterilizers and the installation of items such as ultrasonic cleaners, washer-disinfector machines for anaesthetic equipment and drying cabinets have had labour-saving effects as well as improving the standard of sterilization in a number of hospitals. However, the extent to which some of the more complex equipment can be introduced, particularly in country areas, is limited by the capability of local maintenance services to provide effective preventative and breakdown maintenance.

COMMITTEES

The Adviser has continued to serve on the Packaging for Sterilization Committee of the Standards Association of Australia, the Linen Standardization Committee and is actively involved in the Queensland Society of Sterilizing and Disinfection, a voluntary body that is making a worthwhile contribution to sterilizing services in Queensland hospitals.

OCCUPATIONAL THERAPY

Adviser in Occupational Therapy: Miss RUTH M. READ, B.Occ.Thy.(Qld.)

The Adviser acts as a consultant to Divisions of the Department of Health, Hospitals Boards and other organizations on the planning, equipping and staffing of Occupational Therapy Departments and other facilities providing services for the aged or disabled. These may include Day Hospitals, Rehabilitation Units, and Day Centres.

During the year, additional positions have been approved for Prince Charles Hospital, Gold Coast Hospital, Mater Children's Hospital, Royal Children's Hospital, the Princess Alexandra Hospital and the Halwyn Centre. A new occupational therapy service is to be provided at Dalby Hospital, including the Jubilee Nursing Home.

A visit was made to Gympie Hospital to review progress in the establishment of the occupational therapy service there.

A standard format is being developed for the preparation of submissions for additional occupational therapy staff positions. This should ensure that all relevant information is supplied. A deadline has been set for the receipt of submissions so it will be possible to overview all requests for services across the State when considering priorities.

There is liaison with the University of Queensland concerning the placement of new graduate occupational therapists and the provision of an adequate supply of staff to meet future needs. With the influx of a particularly large graduating group at the commencement of the financial year, there was some concern of an oversupply. However, with some taking interstate positions, all were eventually placed. The prospects for the currently graduating group appear similar.

In the 1981–82 Annual Report, it was mentioned that the Department of Health co-operated in the distribution and collection of questionnaires for the National Survey of the Occupational Therapy Labour Force in Australia. The results of that survey have recently been published.

There was a total of 2 069 occupational therapists who took part in the survey. Of these, 1 639 were practising full or part time. Twelve per cent of the Australian total are resident in Queensland (282).

The number of occupational therapists employed in Queensland has risen 66 per cent between 1979 and 1981 compared with the Australian average of 21 per cent. Western Australia has the highest therapist/population ratio with 1.68 per 10 000, with 1 to 10 000 in Queensland.

Almost two-thirds of full-time practising occupational therapists have graduated since 1974 and are therefore under 30 years of age.

Although 21 per cent of therapists who trained in Queensland are working elsewhere, the State has gained overall as 13 per cent of working therapists trained in another State and 11 per cent of our workforce were trained overseas.

The Biennial Conference of the Australian Association of Occupational Therapists was held in Adelaide from 11th–14th August, 1982. There were more than 350 delegates including 27 from Queensland. The papers presented at the conference to some extent reflected current social problems, with the involvement of occupational therapists in the team management of child abuse and in programmes for the adolescent at risk of developing a serious psychological disorder. There was an emphasis on the treatment of clients with such conditions as traumatic head injury, cerebro vascular accident, arthritis and myocardial infarction.

Many therapists are now employed in community-based settings, and examples included "Play at Home" and other early intervention programmes for children of families considered at risk, programme development in Activity Therapy Centres, private practice rehabilitation funded by an insurance company involved with workers compensation, social clubs for the intellectually handicapped, domiciliary psychogeriatric services, health and fitness clinics, provision of domiciliary and rehabilitation services on a periodic visiting basis to remote areas and a work preparation programme for physically handicapped young people.

The need to document the effect of therapeutic activity and become involved in research was stressed.

The Adviser was also privileged to attend the 7th Asia and Pacific Conference of Rehabilitation International, Kuala Lumpur, Malaysia, held in April, 1983. Approximately 380 delegates attended; of these, 14 came from Britain, Europe and the U.S.A. and 34 from Australia and New Zealand. Large delegations included 55 from Japan, 31 from Hong Kong, 22 from Indonesia, 19 from the Republic of China, 14 from India and 10 from Thailand. One hundred and twenty-five attended from the host country Malaysia. More than 80 papers covered disability groups such as those with cerebral palsy, drug dependence, intellectual or psycho-social handicap, leprosy, orthopaedic handicap, aural or linguistic handicap and visual handicap, and considered aspects such as medical rehabilitation, industrial rehabilitation, social work, special education and vocational rehabilitation.

Discussion with occupational therapists during visits to such institutions as The University Hospital, the General Hospital and Faculty of Medicine, University of Kebangsaan Malaysia and the Selangor Spastic Centre revealed the frustrations experienced when the numbers of therapists dropped to levels of a decade previously following a peak of 50 in Malaysia in the mid 1970's. It is hoped that a training course for occupational therapists will be introduced in Malaysia in the not too distant future to alleviate the problem.

As a member of the Queensland Recreation Council Standing Committee for Recreation for Disabled People, the Adviser attended an evening workshop in Gympie where the needs of the community were explored in order to provide guidelines for the newly formed Gympie Area Committee for Recreation for Disabled.

In this connection the Adviser attended the first meeting of the newly formed Commission on Leisure Recreation and Sports of Rehabilitation International held during the Rehabilitation Conference in Malaysia, and following that was a delegate to the meeting of the Australian Council for Rehabilitation of Disabled Committee on Recreation held in Canberra in May.

The Adviser provides a resource service for occupational therapists and others requiring information on occupational therapy in Queensland and maintains an overview of changes and developing trends within the profession of Occupational Therapy, in its relation to other professions and in relation to the development of services for the disabled or disadvantaged.

The Adviser is a member of the Interdepartmental Advisory Committee on Therapy and Social Work Services (for children at school), is a member of the Secretariat of the Queensland Consultative Committee on Rehabilitation and is Chairman of the Occupational Therapists Board of Queensland.

PHYSIOTHERAPY

Adviser in Physiotherapy: Miss J. CORRIGAN, Dip.Pthy.Qld.

The Adviser in Physiotherapy was appointed on 14th February, 1983. As the position had been vacant, much time has been occupied gaining information on present services so that an overview of the service can be gained and then requirements and priorities will also be known.

QUEENSLAND PHYSIOTHERAPY SERVICE

Full-time physiotherapy positions are established as follows:—

	Full-time Positions
State Hospitals	227
Psychiatric Services	15
Community Medicine	9
Departmental Services	3

Additionally, a number of part-time positions are present throughout the State.

STAFFING

Requests for increases in physiotherapy staff establishments have been examined and recommendations made.

EQUIPMENT

A catalogue of physiotherapy equipment is being prepared. This catalogue will enable physiotherapists to know what equipment is available and from where it is available. Most manufacturers and distributors of physiotherapy equipment have been contacted regarding their range of equipment. Consequently, physiotherapists outside of Brisbane as well as within Brisbane, may have access to a wide range of available literature. A proposal has also been submitted so that evaluation of equipment can occur to ensure good quality equipment in physiotherapy services.

PARTICIPATION IN PROFESSIONAL ACTIVITIES

Conferences and seminars on physiotherapy activities have been attended, including a National Congress in Adelaide in May. The Adviser in Physiotherapy liaises with the Australian Physiotherapy Association as well as attends its meetings and is involved with special interest groups and subcommittees.

Since joining the Department, she has also attended the Queensland Consultative Committee on Rehabilitation and Interdepartmental Advisory Committee on Therapy and Social Work Services meetings.

MEDICAL RECORDS

In August, 1982, the position of Medical Record Administrator, Division of Community Medicine, was transferred to Health and Medical Services. An additional position for a Medical Record Administrator was also created in Health and Medical Services. These two positions now provide an advisory service to divisions and branches and to Public Hospitals on Medical Record practices.

A course in Medical Record Administration which has received the support of this Department commenced in 1983 at Queensland Institute of Technology. This course will lead to the award of a Bachelor of Business.

Public Hospitals with positions for Medical Record Administrators on establishment are:—

Townsville Hospital	1
Cairns Hospital	1
Cold Coast Hospital	1
Mackay Hospital	1
Princess Alexandra Hospital	2
The Prince Charles Hospital	1
Redcliffe Hospital	1
Royal Brisbane Hospital	1
Royal Children's Hospital	1
Royal Women's Hospital	1
Queen Elizabeth II Jubilee Hospital	1
TOTAL	12

HOSPITAL VISITS

The following hospitals have been visited to appraise medical record services:—

Gympie Hospital;
Maryborough;
Toowoomba;
Townsville;
Warwick,

and all hospitals under the South Burnett Hospitals Board.

A Medical Record Administrator has also worked with the staff of Alcohol and Drug Dependence Services to design a new record system.

COMMITTEES

Medical Record Administrators have participated in Coding Committees which are aimed at standardizing I.C.D-9 coding decisions for hospital morbidity statistics. They have also participated in the Forms Review Committee convened by Management Services Branch in relation to Clinical Forms.

A Medical Record Administrator is the Departmental representative on Committee MD/11—Medical Records, of the Standards Association of Australia.

PHARMACY

Adviser in Pharmacy: Mr F. RYAN, Ph.C., M.A.(Griffith), B.H.A.(N.S.W.), F.S.H.P., M.P.S., A.H.A., A.A.I.M.

PHARMACY SERVICES

The pharmacy services continued to expand in State hospitals, both in the numbers of occasions of service processed and in the range of services provided over the past year. This meant that additional staff allocations had to be made in key centres in order to meet the increased demand placed on the Pharmacy Departments in the various hospitals and institutions involved. Areas of expansion in pharmacy staff appointments were in the following hospitals:—

Ayr Hospital;
Cairns Base Hospital;
Gold Coast Hospital, Southport;
Princess Alexandra Hospital, Brisbane;
Rockhampton Base Hospital;
Royal Children's Hospital, Brisbane.

A part-time pharmacy service was also introduced at the Caloundra Hospital during the year.

The Sessional Pharmacy service, which had been operating at Blackall Hospital as a pilot study, was approved as a permanent arrangement. This will be used as a model for other services of this type as they are introduced in the future. Visits were made during the year to several country centres by the Adviser in Pharmacy in order to examine the operation of the pharmacy services being provided and to advise the Hospitals Boards on the further development of these services.

EXPANSION OF SERVICES

The Pharmacy Departments in a number of State hospitals have expanded their services in order to have pharmacists more directly involved in clinical practice areas. The development of ward pharmacy services and imprest systems has greatly assisted in this regard.

Hospital Pharmacy Departments were equipped in the past year with microfiche readers to enable them to participate in the National Drug Information Service which keeps them advised of the latest data on new drugs and medications. Hospitals have been supplied with the National Poisons Register Manual in microfiche form and receive regular updates of the relevant information relating to the treatment of poisoning cases. Microfilm recorder-cameras have been installed in the larger Pharmacy Departments in State hospitals for the purpose of providing accurate and permanent records of outpatients prescriptions dispensed.

Computer systems have been under consideration for use in Pharmacy Departments, and the initial planning has been completed for a pilot study to be carried out at a teaching hospital. The system envisaged will be capable of compiling patient drug profiles and various data relating to drug-drug interactions, contraindications, drug allergies and other clinical information applicable to drug therapy.

Further development of the pharmacy service provided to the Brisbane Prison Complex was continued with the extension of the service to include Wacol Prison. The Adviser in Pharmacy visited H.M. Prisons at Townsville and Rockhampton during the year in order to initiate plans for pharmacy services to be provided to those two institutions from the local base hospitals.

COMMITTEES

The Adviser in Pharmacy continued to carry out the duties of Executive Secretary of the Queensland Hospitals Drug Advisory Committee, Chairman of the Honourable the Minister's Pharmacy Advisory Committee, Deputy Chairman and Treasurer of the Pharmacy Board of Queensland, and to serve as a Queensland representative on the National Therapeutics Goods Committee. In this latter capacity he is also a member of the National Therapeutic Goods Committee's Sub-Committee on Child Resistant Packaging of Drugs and Pharmaceuticals.

The Queensland Hospitals Drug Advisory Committee is a standing committee of the Department of Health which comprises medical practitioners and pharmacists representing various specialty areas of practice. The Committee met on a monthly basis throughout the year and made recommendations to the Director-General of Health and Medical Services regarding the drugs and medications to be used in Queensland State hospitals. Requests for new drugs for inclusion in the Standard Drug List and applications for the use of investigational drugs for clinical trial purposes were the principal matters of business considered by the Committee.

The Minister's Pharmacy Advisory Committee is composed of representatives of the pharmacy professional organizations in Queensland and reports to the Minister on matters relating to the practice of pharmacy in the State. It met on a quarterly basis and dealt with a variety of topics including pharmacy services in rural areas, graduate training programmes, changes to the Poisons Regulations, advertising controls, and drug education and rehabilitation programmes.

STATE CONFERENCE

The third State Conference for pharmacists in charge of Pharmacy Departments in the State health-care system was held in the Department of Health, George Street, Brisbane, in October, 1982. The Honourable the Minister for Health, Mr Brian Austin, officially opened the Conference which was attended by pharmacists representing 37 State hospitals and institutions including the Eventide Homes for the Aged, the Psychiatric Services hospitals and Intellectual Handicap training centres.

The programme was composed of discussion panels on current pharmacy practice together with a special presentation segment on the use of computers in hospital pharmacy. Visits were made by the participants to the Queen Elizabeth II Jubilee Hospital to study a ward pharmacy service in operation in a new hospital, and to a computer centre, the Poisons Information Centre and the Queensland Drug Information Centre to study current information storage and retrieval systems.

NUTRITION AND DIETETICS

Adviser in Nutrition and Dietetics: Mrs J. BREAKEY, Dip.Nut.andFoodService(Vic.), Cert.Diet.(W.A.), T.T.T.C.(Vic.)

Assistant Adviser in Nutrition and Dietetics: Mrs N. ISAACS, M.H.P.(N.S.W.), Dip.Nut.andDiet.(Syd.), B.Sc.(Qld.)

A significant part of the work done by the Advisers is support of those involved in nutritional services in the community and responses to enquiries from the public. Talks were given at seminars for The Bush Children's Health Scheme, Nurses Involved in the Care of the Elderly, Care and Education from an International Perspective, and to migrants. As well, a seminar was organized in conjunction with Meals on Wheels Services Association for supervisors. Over the year there were 600 phone enquiries and 350 written enquiries responded to. Information was also supplied to the media on many nutritional issues. Support was also given to groups such as the Diabetes Association, the Coeliac Society and the Queensland Hyperactivity Association.

A liaison with education institutions which contribute to nutrition care was maintained. The Adviser was a member of the Course Accreditation Committee for the Queensland Institute of Technology's Diploma of Nutrition and Dietetics course for the training of dietitian-nutritionists and had a continuing involvement as a member of the Liaison Committee organizing hospital involvement in training. A structured input by the various Divisions of the Department into the training program was formalized. As well, there was input into the curriculum development of nutritional aspects of a community-oriented course by Technical and Further Education staff.

The number of dietitian-nutritionists employed in Queensland Hospitals at 30th June, 1983, is as follows:—

Royal Brisbane Hospital	9
Royal Children's Hospital	2
Royal Women's Hospital	1
Princess Alexandra Hospital	8
Prince Charles Hospital	2
Mater Public Hospitals	2½
Gold Coast Hospital	1
Redcliffe Hospital	1
Ipswich Hospital	1
Queen Elizabeth II Jubilee Hospital	1
Cairns Hospital	1
Townsville Hospital	2
Mackay Hospital	1
Rockhampton Hospital	1
Maryborough Hospital	1
Toowoomba Hospital	1
Mount Isa Hospital	1

Dietitian-nutritionists employed in the Department of Health:—

Adviser in Nutrition and Dietetics	1
Assistant Adviser in Nutrition and Dietetics	1
Aboriginal Health Program	1
Eventide Home for the Aged	1
Division of Health Promotion (part-time)	1

Visits were made by the Advisers to the Moreton Bay Nursing Care Unit, Royal Brisbane Hospital, Royal Children's Hospital, Royal Women's Hospital, Princess Alexandra Hospital, Eventide Home for the Aged, and Maryborough, Hervey Bay, Gympie, Nambour, Townsville and Gold Coast Hospitals. These visits were to assess provision of dietetic services as well as management of all normal and therapeutic diets, and, in the metropolitan hospitals, the implementation of frozen food services.

Support for solo dietitians in country hospitals is seen as important. Four new dietitians were given a two-day orientation programme which includes input from the major metropolitan hospitals and from Aboriginal Health Programme staff.

Six meetings on Rationalization of Frozen Foods involving user, Department and Frozen Food Facility representatives were held. Recommendations were then made to the Frozen

Food Advisory Body. Estimation of the sodium content of some pasta and frozen vegetables were carried out and found to be satisfactory. Visits by hospitals staff were made to the Facility. A general menu guideline using frozen foods was developed for acute hospitals, and a similar guide for long-stay institutions is planned.

At the same time as introducing frozen foods, many metropolitan hospitals are reorganizing food service ordering, delivery and supervisory systems to provide an improved food service for both normal and therapeutic diets. The Advisers investigated the implications especially for organization of staffing requirements.

The newly created position of caterer at Townsville Hospital brought the number of caterers in Queensland Hospitals and Institutions to five. Since Townsville Hospital provides a frozen food service, the caterer was instructed using resources at major metropolitan hospitals, the Frozen Food Facility and a visit to Gatton Agricultural College *re* technical aspects of management of frozen food.

As part of the overall assessment of dietetic services in Queensland Hospitals, all requests for staffing were evaluated and priorities indicated. The dietitian-nutritionist in the Division of Health Promotion played a significant role in aiding nutrition education programmes until her resignation in April. The Advisers were involved as consultants in the production of the pamphlets *Low Cost Nutrition, Wake Up To Breakfast, Wise Eating for the Older Person* and nutrition articles in the publication *We Care.* To support the nutrition education done by other Divisions, the Advisers were involved in the in-service training of School Health and Community Medicine Nurses and gave talks to staff in Maternal and Infant Health and Alcohol and Drug Dependence Services Branch.

Assessment of the provision of normal and modified diets in private nursing homes was made. Visits to Wynnum, Riverlodge, Carrington, Gold Coast private nursing homes occurred. A Nursing Home Manual for Food Services written to accompany the Nursing Home Regulation (1982) has been prepared and approved for printing.

The Advisers continue their role on the Food Standards Committee and are involved in the assessment of nutritional aspects of many food products to ensure accordance with the Food Standards Regulations.

There was also liaison with the Food Industry via representation on the Food Technology Association Nutrition Subcommittee, the National Nutrition Week Subcommittee, a presentation at the Food Forum Seminar and a talk to Food Technologists in training.

To support the work of the Advisers, current scientific references and journals have been acquired and the following conferences attended:—

The Australian Association of Dietitians Conference on Food Service and Nutrition Education;

The Nutrition Society of Australia and ANZSERCH on recent scientific advances;

The National Drug Institute on Alcohol;

Nutrition Education, the role of Government, Industry, Professionals and Media; and

A Conference on Catering for the 80's.

Updating information was passed on to relevant divisions and staff.

DIVISION OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

Director, Division of Environmental and Occupational Health: R. A. RAMM, M.B., B.S.(Qld.), M.H.P. (U.N.S.W.), F.R.A.C.M.A.

Assistant Director (Environmental Health): POSITION VACANT

Assistant Director (Occupational Health): D. A. SMITH, M.B., B.S.(Qld.)

Senior Medical Officer (Health and Medical Services): A. T. C. BOURKE, M.Sc.(Liv.), M.D.(Dubl.), Dr.P.H.(Yale), F.R.C.P.A., F.A.C.P.M., M.A.S.M., D.T.M.&H.(Eng.)

Senior Medical Officer (Occupational Health): G. R. NEVILLE, M.B., B.S.(Qld.)

Medical Officer: D. A. RUSSELL, M.B., B.S.(Madras), D.P.H.(Syd.), F.R.A.C.M.A.

Chief Inspector of Foods: W. J. SHIELDS, Cert.R.S.H., A.A.I.H.S.

Chief Inspector of Drugs and Poisons: K. F. KEEFER, Cert.R.S.H., A.A.I.H.S.

Chief Inspector of Environmental Sanitation: H. R. HASSETT, Cert.R.S.H., Dip.Trop.Hyg.(R.S.H.), M.A.I.H.S.

W. J. T. LANE, Dip.R.S.H. (from 18-11-82)

Secretary, Director-General: W. J. T. LANE, Dip.R.S.H.

R. J. LOWRY, Dip.R.S.H. (from 18-11-82) (Position redesignated Principal Health Inspector from 9-6-83)

DISTRICT INSPECTORS

Gold Coast:	A. NEILSON, Dip.R.S.H., M.I.H.I.(NZ.) A. G. TAYLOR (from 17-1-83)
Toowoomba:	A. W. WARE, Dip.R.S.H., A.A.I.H.S.
Nambour:	J. A. SANDERSON, Cert.R.S.H., M.A.I.H.S.
Bundaberg:	M. J. PRICE, Dip.R.S.H., A.A.I.H.S.
Rockhampton:	T. J. LUNNEY, Dip.R.S.H.
Mackay:	A. G. TAYLOR, Dip.R.S.H. D. J. LARSEN, Dip.R.S.H. (from 18-1-83)
Townsville:	C. D. HAPGOOD, Dip.R.S.H.
Cairns:	G. J. DORRICOTT, Dip.R.S.H.

INTRODUCTION

The current year has seen the foundation of the Division of Environmental and Occupational Health by the amalgamation of the Divisions of Public Health Supervision and Industrial Medicine. It is hoped to provide more effective leadership by permitting greater specialization in the senior positions, and to use field staff in more diverse ways. The change has presented an ideal opportunity to re-assess many traditional responsibilities, attitudes and service delivery systems in the light of modern concepts, changes in community attitudes and new legislation. There is no doubt that there are many areas in which new technologies and requirements will demand an expanded role by officers of this Division.

Two streams identifiable as environmental and occupational health, each headed by an Assistant Director, will incorporate the former roles. Environmental health will include environmental sanitation, food supervision, drugs and poisons and communicable disease epidemiology. New initiatives have included the intense negotiation with industry on the Food Standards Regulations 1982, and the further development of a computerized drugs of dependence monitoring system to detect the leakage of dangerous drugs from the licit to the illicit scene. The Refuse Management Regulations 1983 have upgraded many aspects of waste management, while deliberations regarding the future management of hazardous (toxic) liquid and solid wastes have continued. The occupational health stream has seen the appointment of Dr David Smith as Assistant Director and Dr Gerald Neville as Medical Officer. Dr Smith visited Canada during the year at the invitation of the Workers Compensation Board to review legislation and administrative practices in that area.

Particular mention should be made of additional responsibilities following the detection of sand with increased levels of radioactivity in the Brisbane, Maryborough and Gold Coast areas. Officers of the environmental sanitation section have played a major role in receiving complaints, and surveying a number of the suspect properties. Arrangements are continuing for the development of a computerized system to handle the large amount of data that is accumulating.

We once again extend our thanks to the numerous organizations who have co-operated with us during the year. In particular we gratefully acknowledge the assistance of the Government Chemical Laboratory; the Laboratory of Microbiology and Pathology; the Commonwealth Health Laboratories; the Departments of Primary Industries; Local Government and Harbours and Marine; the Queensland Fisheries Services; the Queensland Fish Board; the Commonwealth Department of Health and the Bureau of Customs; and the various Local Authorities of Queensland.

ENVIRONMENTAL HEALTH

Staff and General

The Environmental Health Unit consists of staff formally attached to the Unit and support personnel allocated from Health and Medical Services.

In general terms this staff establishment can be stated as:—

Assistant Director (Environmental Health)	1
Chief Inspectors	3
Principal Health Inspector	1
Senior Inspectors	5
District Health Inspectors	8
Health Inspectors and Technical Assistants	51
Inspector (Fish Markets)	1
Clerk—Classified	1
Clerks—Unclassified	7
Administrative Assistants Grade I	4
Administrative Assistants Grade I (Stenographers and Typists)	11
Administrative Assistants Grade II	4

Two positions of Technical Assistant (Health Inspection) are vacant.

A number of new graduates with an Associate Diploma in Health Surveying from the Queensland Institute of Technology have again been appointed as Technical Assistants. They will complete 12 months in-service training before being eligible for appointment to Health Inspector Division II. Three officers have successfully completed the examination for promotion from Health Inspector Division II to Health Inspector Division I.

The Brisbane office has been re-organized to incorporate a district office structure to more effectively utilize existing manpower and other resources.

Dr R. A. Ramm has continued as a member of the Water Quality (Standing) Committee of the National Health and Medical Research Council, the Health Committee on Drugs of Dependence, the Water Quality Council of Queensland, the Standards Association of Australia Committee CS/65—Tampons, the Metropolitan Works Board, the Inter-departmental Committee on the Chemical Contamination of Foods and the Inter-departmental Committee considering Toxic Wastes and Radioactive Sand.

Dr A. T. C. Bourke is the Chairman of the Inter-departmental Salmonella Liaison Committee. He is also a member of the Standards Association of Australia on the Microbiological Examination of Foods, the Inter-departmental Committee for the Prevention of Ciguatera Poisoning in Queensland and Deputizing member of the Water Quality Council of Queensland.

Mr W. J. Shields is a member of the Food Standards Committee, N.H. & M.R.C., the National Committee on Clearance of Food Labels, the Queensland Contact Point for the Joint F.A.O./W.H.O. Codex Alimentaries Commission, the Inter-departmental Committee on the Prevention and Control of Ciguatera, the Salmonella Liaison Committee and the Filled Milk Act Advisory Committee.

Mr K. F. Keefer is a member of the Poisons Schedule (Standing) Committee of the N.H. & M.R.C., the National Therapeutic Goods Committee and the Inter-departmental Committee on Consumer Standards.

Mr W. J. T. Lane is a member of the Joint Committee constituted under the Sewerage and Water Supply Act, and the Long Term Caravan Residency and Caravan Parks Committee.

Senior Inspector A. Neilson is a member of the Plumbers and Drainers Licensing and Examination Board.

Inspector J. J. Forbes is a member of the Working Party on Model Food Hygiene Regulations and the Departmental Advisory Committee on Food Standards.

Dr D. A. Russell continues as consulting Leprologist to the State of Queensland.

Mr H. R. Hassett, Chief Inspector of Environmental Sanitation resigned on 12th August, 1982, after 27 years in the field of health supervision. Mr Hassett joined the Department in 1956 and served in a number of positions including that of Secretary to the Director-General of Health and Medical Services before his appointment as Chief Inspector in 1980.

Resignations were tendered by four Health Inspectors Division II, one Technical Assistant and two Administrative Assistants Grade I.

Members of the staff continue to give lectures and tutorials on Public Health and other specialized subjects at a number of tertiary educational institutions and to business associations.

EPIDEMIOLOGY

INTRODUCTION

The collection, collation and analysis of epidemiological data primarily in relation to communicable diseases are one of the important functions of the Division. Investigation and where necessary the control of increases in disease frequency are also undertaken.

NOTIFIABLE DISEASES

During this financial year, two illnesses have been added to the list of notifiable diseases—genital herpes and the acquired immune deficiency syndrome (AIDS). To date no proven cases of AIDS have occurred in Queensland. Since the cause remains unknown and there are no specific tests to detect this syndrome, medical practitioners are advised to notify atypical, non-resolving and re-current infections in patients with no known cause for immuno-deficiency such as chemotherapy for oncogenic conditions. Such notifications will be examined by the AIDS Co-Ordinating Committee under the chairmanship of the Deputy Director-General of Health and Medical Services.

Notifiable diseases reported by medical practitioners during the year ending 30th June, 1983, are recorded in *The Total Notifications Table*. In previous years these notifications were also tabulated to show the numbers reported by month. Unfortunately, medical practitioners do not usually submit prompt notifications. In some instances diseases are only notified three months after the onset of illness. Consequently, monthly tabulations based on the dates of receipt provide no useful information on temporal trends of disease.

In an endeavour to present more meaningful data and at the same time to obtain additional information on disease frequency, the monthly tabulations now include data submitted by the Laboratory of Microbiology and Pathology of this Department and the Department of Pathology, Royal Brisbane Hospital, and are based on the dates of onset of disease. When the times of onset are not provided, the dates on which laboratory reports were prepared are then utilized. Usually diagnostic tests are reported within a month of onset. Since the inclusion of data supplied by the laboratories (on a trial basis) commenced during the year, the figures presented in this report are unfortunately incomplete. The revised monthly distribution of diseases based on incidences are presented in two tables; (1) *The Metropolitan Table*; and (2) *The Extra Metropolitan Table*.

The following tables also contain laboratory data:—(1) *The Gastro-intestinal Disease Table*; (2) *The Arthropod-borne Disease Table*; (3) *The Occupational Disease Table*; (4) *The Employment Table*; (5) *The Neurological Diseases Table*; and (6) *The Notification Rate Table*. Detailed analysis of the malaria data are presented and evaluated elsewhere. Tuberculosis and venereal diseases are discussed in the reports of the Division of Tuberculosis and the Section of Enthetic Diseases respectively.

The *Total Notifications Table* lists notifiable diseases in descending order of total notifications and compares them with the notifications recorded between 1981 and 1982 and the mean annual notifications received between 1977 and 1982. The numbers of notifications are also tabulated according to two defined areas:—

(a) The Metropolitan Area representing that part of Brisbane administered by the Brisbane City Council;

(b) The Extra Metropolitan Area comprising all Local Authorities except the Brisbane City Council.

These two defined areas are also used for recording the monthly incidences of notifiable diseases.

The following notifiable diseases were not reported by medical practitioners during the year:—AIDS, anthrax, brucellosis, diphtheria, hydatid disease, plague (which is not enzootic in Australia), poliomyelitis, psitticosis, smallpox (which has been eradicated from the world), taeniasis, epidemic typhus (which is louse-borne) and yellow fever (which is enzootic in the tropical regions of the New World and Africa). In the previous year to 30th June, 1982, four cases of brucellosis were notified. No cases of anthrax, plague, poliomyelitis, smallpox, epidemic typhus and yellow fever have been brought to the attention of this Division in the past 7 years.

Salmonellosis heads the list with the most notifications. Other frequently reported diseases were malaria, all forms of tuberculosis, Q. fever, hepatitis A, and dengue fever. These were followed by hepatitis B, shigellosis, epidemic polyarthritis and all types of meningitis. The incidences of all were higher in the Extra Metropolitan Area.

Significant increases in the notifications of malaria, Q. fever, dengue fever, hepatitis B, epidemic polyarthritis (Ross River fever), food poisoning in two or more associated cases, and all types of encephalitis have occurred since the previous year. There was also a slight increase in the number of notified cases of salmonellosis. Of these, Q. fever and food poisoning in two or more associated cases do not exceed the mean annual notifications of the past 5 years.

Reductions in notifications of tuberculosis, hepatitis A, shigellosis, meningitis and amoebiasis also took place during the year. None of these notifications exceeded the mean annual notifications of the preceding 5-year period.

On examining *The Metropolitan Table* and *The Extra Metropolitan Table* it is evident that most cases of diarrhoea in closed institutions occurred in May. The cases of dengue fever which presented between August and September probably represented the tailing off of the dengue epidemic which had occurred principally in Townsville and Cairns during the second half of the preceding year. The Laboratory of Microbiology and Pathology have reported no serologically proven cases between October 1982 and March 1983. It is therefore possible that some of the notified cases occurring after September 1982 were in fact cases of influenza and epidemic polyarthritis, both of which were present in northern Queensland at that time. An examination of the monthly incidences of epidemic polyarthritis would support this hypothesis. This disease in fact was particularly prevalent in the Extra Metropolitan Area between January and May. Twenty-four cases were also reported from the Metropolitan Area. The number of cases of salmonellosis peaked in both areas during October 1982. At that time *Salmonella muenchen* was the predominant serotype. Investigations failed to identify a common vehicle or vehicles. This may have been due to the fact that some of the adults interviewed gave histories of only mild "stomach upsets" prior to the onset of illness in their young children. Had the organism been more virulent for healthy adults, sources of infection might have been detected. Both types of hepatitis occurred throughout the year though the incidences increased during the summer.

The geographic occurrence of amoebiases, cholera, hepatitis A and B, salmonellosis, shigellosis and typhoid fever in the principal cities and towns of Queensland and the Torres Local Authority area are tabulated in The *Gastro-enteritis Table*. Nine cases of amoebiasis were diagnosed in Brisbane. Of these, three probably contracted their infections overseas. One had visited Pakistan, one had been to Papua New Guinea and the third case had visited Indonesia. Of the six from other localities two were shedding cysts of *Entamoeba histolytica*. No details were given about sources of infection. The three cholera cases will be presented under a separate heading. Hepatitis A had a State-wide distribution. A high incidence rate is recorded for the Torres Local Authority Area, a moderately high rate for Cairns and significantly elevated rates for Gladstone and Mackay. High rates are recorded for Cairns and Townsville. Brisbane on the other hand has a comparatively low rate. Salmonellosis occurred in all cities and towns, the Torres Local Authority Area and in other localities throughout Queensland. Cairns and the Torres Local Authority Area had high incidence rates. Although most cases of shigellosis occurred in Brisbane, the incidence rate was low. Mount Isa had the highest incidence rate. Five cases of typhoid occurred during the year. Three were reported from the Torres Local Authority, one of which was probably contracted locally though no source of infection was ever identified. The remainder were contracted in Papua New Guinea. Apart from the 80-year-old male patient, the other cases were contracted in South East Asia. The elderly patient was found to be infected when *Saimonella typhi* was isolated from excised tissue following a cholecystectomy.

The Arthropod-borne Disease Table shows where cases of dengue fever, epidemic polyarthritis, filariasis, malaria and the various types of typhus occurred. The two cases of Bancroftian filariasis were most likely contracted in Papua New Guinea where the disease is endemic. The dengue figures may contain an unknown proportion of epidemic polyarthritis cases. Two isolated cases were diagnosed serologically during April. The significance of these findings are discussed in the report of the Laboratory of Microbiology and Pathology. Cairns and Townsville were probably spared outbreaks of dengue because of the prolonged drought coupled with intensive vector control measures. However, Cairns, Mackay, Rockhampton and Townsville had high incidence rates of epidemic polyarthritis, some of which may have been clinically mistaken for dengue fever. Most cases of malaria were diagnosed in northern Queensland, especially in the Torres Local Authority Area. All but one case was imported into Queensland. Details are given elsewhere in this annual report. Though enzootic in parts of Queensland, the murine scrub and tick types of typhus are uncommon infections. But both scrub typhus and tick typhus could cause significant levels of ill-health during military operations conducted in enzootic areas.

Brucellosis, leptospirosis and Q. fever are well recognized occupational diseases in Queensland. Details of their geographic occurrence are presented in *The Occupational Disease Table*. The occupations and sex of those infected are recorded in *The Employment Table*. Only five cases of brucellosis were reported to this Division, three of whom occurred in Brisbane and two in Townsville. Two of the individuals, both males, were employed in the meat industry. Leptospirosis occurred in 16 Local Authorities but most cases were reported from Brisbane, Cairns and Toowoomba. The majority worked in either the meat or farming industries; all were males. Q. fever occurred in 31 local authorities including Ipswich which had the highest incidence rate.

The farming and meat industries accounted for over 60 per cent of the cases, the majority of whom were males.

The types of meningitis and encephalitis are recorded in *The Neurological Table*. At least half of the cases of encephalitis were considered to be viral. Just under half of those who contracted meningitis were viral. One was caused by the protozoon, *Naegleria fowleri*, and is presented under a separate heading in this report. The remainder were caused by bacteria.

The Notification Rate Table gives the percentages of laboratory reported cases of 12 notifiable diseases which were notified by medical practitioners. Of those diseases, numbering more than 20 cases, the notification rates ranged from 4.8 to 35.3 per cent. The high notification rate for salmonellosis was probably due to the investigation of *Salmonella muenchen* cases in October, 1982, when medical practitioners were urged to notify cases to this Division by medical microbiologists and pathologists throughout Queensland.

Although notifications do not represent the true incidence of disease in populations they do serve to alert this Division to the presence, prevalence, incidence, location and time distribution of illness. Awareness, interest and in some cases the need to await laboratory confirmation of the diagnosis are among some of the factors that influence the reporting of notifiable diseases. In general, the reporting of a disease is likely to be more thorough with some of the more rarely occurring or clinically interesting conditions than the more common infections. Early advice from medical practitioners on individual cases or outbreaks are welcomed so that prompt investigations can be initiated and an appropriate course of action taken. In such instances formal notifications should nevertheless be forwarded to the Department at the practitioners earliest convenience.

It would appear that laboratory reports provide a richer source of information than the notifications submitted by medical practitioners. However, since medical practitioners are usually the first to see cases of notifiable diseases, it is important that they continue to submit timely notifications.

Three Cholera Incidents of 1983

Rockhampton incident

On 12th January, 1983, a young severe diabetic developed diarrhoea. A toxigenic strain of *Vibrio cholerae*, biotype *eltor*, serotype Inaba was isolated from his faeces. Household and other close contacts were screened but no infections were detected. Initially, it was thought that the patient may have contracted cholera from relatives in the Kenilworth area who had visited Rockhampton prior to the onset of illness. One or more of the relatives could have picked up a mild clinical or asymptomatic infection from one of the tributaries of the Mary River which in the previous year had been found on numerous occasions to contain the 01 cholera vibrio. Subsequent studies, however, failed to substantiate this hypothesis. In the meantime, the investigation of what were considered to be two unlikely food sources of the infection led to the discovery that lettuce, cultivated in a lettuce market garden in North Rockhampton, were being spray-irrigated with creek water which contained the 01 cholera vibrio.

Laboratory examination of the irrigation water from a stand-pipe and two out of five heads of lettuce sampled from the garden were also shown to contain this organism. Remedial action now consists of spray-irrigating the lettuce crop with creek water 30 minutes after it has been hand-chlorinated in a holding tank recently installed on the property. Since the patient consumed lettuce cultivated in that garden, it is postulated that, because of his debilitated condition, he contracted his infection from that vehicle, in which was entrapped creek water containing a small number of 01 cholera vibrios.

Mount Morgan incident

A 21-month-old male was admitted to the Mount Morgan Hospital with diarrhoea and vomiting on 29th January, 1983. A non-toxigenic strain of *Vibrio cholerae*, biotype *eltor* serotype Ogawa and a salmonella were isolated from the child who subsequently recovered after therapy. Inquiries revealed that the patient and other children of the household and neighbourhood had been playing in a puddle of sullage water in the back garden of the house. Investigations indicated that the origin of this water was a laundering area under the house where clothing, including nappies, were washed. There was also evidence of leakage of sewage from the sealed septic tank. Only two of the 22 contacts screened for *V. cholerae* 01 and other enteropathogens yielded *Salmonella sp.* The 01 cholera vibrio was not isolated from any of the contacts. Neither was it recovered from soil contaminated with sullage water, a swab of the septic tank leak, a swab of the work bench in the kitchen of the residence, reticulated water samples taken from various points in and around the house nor from water samples taken from surface waters around Mount Morgan. The source of the organism was not identified, but it may have been material which had leaked from the sealed septic tank. Because a salmonella was also isolated from the case, the clinical significance of the vibrio in this instance must be considered doubtful.

Beaudesert incident

A three and a half-year-old male was admitted to the Beaudesert Hospital in a moribund state on 3rd March, 1983. He had developed gastroenteritis the day before. *Vibrio cholerae*, biotype *eltor*, serotype Inaba was isolated from his stools. After receiving intensive therapy the child recovered. Inquiries revealed that he and household members had bathed in the Logan River at II Bogan Bridge on the outskirts of Beaudesert one and two days before the onset of illness. They also gave a history of bathing daily in Sandy Creek near their residence. The 01 cholera vibrio was not isolated from the water supply of the residence or from the bathing site on Sandy Creek. None of the 19 contacts screened for cholera was found to be infected. However, during the on-going cholera surveillance programme *V. cholerae biotype eltor*, serotype Inaba has recently been isolated on several occasions from the Logan River system, including the II Bogan Bridge bathing area. It is therefore probable that the child contracted his infection from river water ingested at that site while bathing one or two days before he became ill.

Fatal Case of Primary Amoebic Meningoencephalitis

On 30th November, 1982, a 10-month-old boy, a resident of Charters Towers, developed pharyngitis and later otitis media. The onset was insidious for the initial manifestations did not include signs of cranial involvement. He was placed on appropriate treatment. Since the parents wished to travel to Cairns, the attending general practitioner recommended that medical advice be sought during the trip. After seeking such advice en route, the child was referred to the Cairns Base Hospital where he died nine hours after admission on 3rd December. Amoebae isolated ante-mortem from the patient's cerebrospinal fluid at the Commonwealth Health Laboratory in Cairns were identified as *Naegleria fowleri* at the Engineering and Water Supply Department of South Australia.

Investigations revealed that the child had often bathed in a collapsible wading pool in the front yard of the parents' residence in Charters Towers. The pool was always filled with water from the city supply by a hose attached to an outdoor tap of the residence. The patient was last exposed to the water in the pool three days before he became ill. *N. fowleri* was isolated from water drawn through the hose from the outdoor tap. An inspection of the city water supply disclosed that, while the treatment plant produced potable water, the water drawn from the uncovered holding reservoir contained only occasional traces of free residual chlorine insufficient to kill *N. fowleri*.

This patient is the eighteenth confirmed case of primary amoebic meningoencephalitis to be recorded in Australia and the second in Queensland. Unlike the first Queensland case which occurred in a 14-year-old boy from Mount Morgan in October, 1971, this one had a fatal outcome.

Hansens Disease

Eight new cases were notified during the year, of which two were children, an Aboriginal boy aged 11 and a Vietnamese girl aged 7. Of the remaining cases, three were Aborigines, one a Torres Straits Islander, and two were Australian Caucasians. All are under active treatment and progressing satisfactorily. Two of the new patients are seen regularly at the Out-Patient Department of the Princess Alexandra Hospital and the others attend hospitals at Cairns, Thursday Island and Gayndah.

Teaching sessions have been conducted for medical students and in-service training of Aboriginal Health Programme staff and consultative services have been maintained with regard to other hospitals and visits to other areas.

The Consultant in Leprosy attended the Thirteenth Australian Tuberculosis Clinical Conference at Perth from 27th September to 1st October, 1982, and presented a paper entitled "Experience with Acedapsone (DADDS) in the Therapeutic Trial in New Guinea and the Chemo-prophylactic Trial in Micronesia", in the session on leprosy.

Another paper entitled "Leprosy Update" was presented at the Public Health Plenary Session of the Queensland Society for Microbiology at Brisbane, 16th–20th May, 1983.

IMMUNIZATION PROGRAMME

During the year, the following vaccines supplied by the Commonwealth were distributed by this Division:—

Sabin—

10 dose vials	246 670
20 dose vials	105 220
Totals	351 890

An increase of 51 973 doses distributed over 1981–1982 figures.

Measles—

Single dose vials	17 710

A decrease of 24 125 doses distributed over 1981–1982 figures.

Measles/Mumps—

Single dose vials	43 000

Distribution of this vaccine began in January, 1983.

Rubella—

Single dose vials	29 478
10 dose vials	3 140
50 dose vials	6 000
Totals	38 618

An increase of 1 734 doses distributed over 1981–1982 figures.

NOTIFIABLE DISEASES (EXCLUSIVE OF VENEREAL DISEASES) REPORTED BY MEDICAL PRACTITIONERS BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983, AND LISTED IN DESCENDING ORDER OF TOTAL INCIDENCES

(*The Total Notifications Table*)

Disease	Metropolitan	Extra Metropolitan	Total 1982–83	Total 1981–82	Mean Annual Total 1977–82
Salmonellosis	91	304	395	377	206.8
Malaria	71	168	239	172	142.4
Tuberculosis (All forms)	81	105	186	195	228.2
Q. Fever	45	129	174	138	239.0
Hepatitis (Type A) (Infective)	25	138	163	193	235.4
Dengue Fever	0	133	133	78	16.0
Hepatitis (Type B) (Serum)	26	53	79	66	68.2
Shigellosis	14	32	46	95	90 0
Epidemic Polyarthritis (Ross River Fever)	0	38	38	8	10.0
Meningitis	12	20	32	36	58.4
Food Poisoning (In two or more associated cases)	0	17	17	2	32.4
Encephalitis	7	5	12	7	5.2
Amoebiasis	5	6	11	16	14.8
Ancylostomiasis (Hookworm)	1	10	11	10	42.8
Leptospirosis	1	10	11	22	14.8
Rubella	1	10	11	29	44.2
Leprosy	1	7	8	8	6.6
Puerperal Fever	0	6	6	3	2.6
Scrub Typhus	0	6	6	0	0.4
Typhoid	1	4	5	3	2.0
Lead Poisoning	1	3	4	4	1.6
Tetanus	1	3	4	0	3.0
Cholera	0	3	3	0	0.4
Melioidosis	0	3	3	4	5.4
Staphylococcal or Streptococcal Infection (In nursery)	1	2	3	12	4.8
Trachoma	1	2	3	0	0.2
Filariasis	0	2	2	0	0.0
Tick Typhus	1	1	2	0	0.0
Diarrhoea (In closed institution)	0	1	1	87	18.0
Murine Typhus	0	1	1	0	0.2
A.I.D.S.	0	0	0	..	..
Anthrax	0	0	0	0	0.0
Brucellosis	0	0	0	4	7.0
Diphtheria	0	0	0	0	1.2
Hydatid Disease	0	0	0	0	0.8
Plague	0	0	0	0	0.0
Poliomyelitis	0	0	0	0	0.0
Psittocosis (Ornithosis)	0	0	0	0	0.6
Smallpox	0	0	0	0	0.0
Taeniasis (Tapeworm)	0	0	0	0	0.2
Epidemic Typhus	0	0	0	0	0.0
Yellow Fever	0	0	0	0	0.0

NOTIFIABLE DISEASES (EXCLUSIVE OF TUBERCULOSIS AND VENEREAL DISEASES) BY MONTH OF ONSET OR DIAGNOSIS BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983, IN THE METROPOLITAN AREA

(*The Metropolitan Table*)

——	Not Recorded	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	Total
A.I.D.S.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amoebiasis	..	..	2	2	..	1	..	..	1	3	..	..	2	11
Ancylostomiasis (Hookworm)	..	..	1	..	1	..	..	..	..	..	..	..	1	3
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brucellosis	1	..	..	..	..	..	..	..	..	2	..	..	..	3
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dengue	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Diarrhoea (In closed institution)	..	..	..	..	..	..	..	..	..	..	..	14	..	14
Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis	..	..	..	2	..	2	..	1	..	..	..	1	..	6
Epidemic Polyarthritis (Ross River Fever)	..	1	1	1	..	..	3	..	3	2	9	4	..	24
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Food Poisoning (In two or more associated cases)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hepatitis (Type A) (Infective)	1	2	3	8	4	12	5	9	1	3	..	2	..	50
Hepatitis (Type B) (Serum)	5	..	1	..	2	12	2	7	6	2	1	14	..	52
Hydatid Disease	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Lead Poisoning	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Leprosy	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Leptospirosis	1	1	1	..	..	..	1	3	1	2	2	1	1	14
Malaria	6	7	9	6	10	4	5	5	4	1		3	..	61
Melioidosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis	1	1	2	1	9	2	1	2	2	2	..	..	..	23
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Psitticosis (Ornithosis)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Q. Fever	..	3	3	4	7	9	6	4	..	1	4	1	..	42
Rubella	..	..	5	4	1	11	7	2	1	2	..	..	..	33
Salmonellosis	10	5	3	4	28	7	9	14	14	7	6	4	2	113
Shigellosis	6	1	..	8	4	1	1	1	5	..	1	2	..	30
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Staphylococcal or Streptococcal Infection (In nursery)	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Taeniasis (Tapeworm)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tetanus	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Trachoma	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Typhoid	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Typhus—														
(1) Type not recorded (but *not* Epidemic type)	..	..	..	..	..	5	..	..	..	..	..	..	..	5
(2) Epidemic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(3) Murine	..	..	..	..	..	1	..	..	..	2	..	..	..	3
(4) Scrub	..	..	..	..	..	..	..	..	1	..	..	..	..	1
(5) Tick	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..

NOTIFIABLE DISEASES (EXCLUSIVE OF TUBERCULOSIS AND VENEREAL DISEASES) BY MONTH OF ONSET OR DIAGNOSIS BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983, IN THE EXTRA-METROPOLITAN AREA

(*The Extra-Metropolitan Table*)

—	Not Recorded	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	Total
A.I.D.S.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amoebiasis	..	..	..	3	1	..	..	1	..	1	..	..	..	6
Ancylostomiasis (Hookworm)	4	..	..	..	2	1	..	1	2	..	..	..	..	10
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brucellosis	1	..	..	..	..	..	..	..	..	1	..	..	..	2
Cholera	..	..	..	..	..	..	..	1	1	1	..	..	..	3
Dengue	9	30	4	6	1	3	8	14	13	3	5	2	2	100
Diarrhoea (In closed institution)	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis	1	..	..	..	..	..	1	1	..	..	1	..	..	4
Epidemic Polyarthritis (Ross River Fever)	3	10	2	4	..	1	1	22	57	52	89	52	1	294
Filariasis	..	..	..	..	..	1	1	..	..	..	..	..	..	2
Food Poisoning (In two or more associated cases)	..	..	..	..	..	..	..	..	..	2	2	..	13	17
Hepatitis (Type A) (Infective)	7	10	14	17	14	29	23	12	9	9	6	7	3	160
Hepatitis (Type B) (Serum)	6	4	4	12	4	5	1	2	4	5	1	4	..	52
Hydatid Disease	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Lead Poisoning	1	..	..	..	1	..	..	..	..	1	..	..	..	3
Leprosy	4	1	..	..	1	..	..	..	..	..	..	1	..	7
Leptospirosis	..	6	3	2	1	5	4	6	3	13	6	4	..	53
Malaria	51	8	7	6	9	4	7	7	10	3	3	6	5	126
Melioidosis	1	..	..	..	..	..	..	..	..	..	1	..	1	3
Meningitis	2	1	1	..	..	..	1	3	..	4	1	4	..	17
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Psitticosis (Ornithosis)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	..	1	..	..	..	..	1	..	1	1	..	..	5
Q. Fever	2	15	11	11	7	7	10	7	3	5	14	11	..	103
Rubella	..	1	2	7	7	10	8	3	3	4	2	3	..	50
Salmonellosis	46	8	5	10	33	13	20	34	28	44	27	21	6	295
Shigellosis	..	..	2	2	..	3	1	1	3	3	5	7	7	34
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Staphylococcal or Streptococcal Infection (In nursery)	..	..	1	..	..	..	1	..	..	..	..	..	..	2
Taeniasis (Tapeworm)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tetanus	..	..	..	..	1	..	..	..	..	1	..	1	..	3
Trachoma	1	..	..	..	..	1	..	..	..	..	..	..	..	2
Typhoid	1	..	..	..	..	..	..	3	..	..	..	..	..	4
Typhus—														
(1) Type not recorded (but *not* Epidemic type)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(2) Epidemic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(3) Murine	..	..	..	..	..	1	..	..	..	..	..	..	..	1
(4) Scrub	..	1	..	..	1	..	..	1	1	1	1	2	..	8
(5) Tick	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..

GEOGRAPHIC OCCURRENCE OF NOTIFIABLE GASTRO-INTESTINAL DISEASES AND HEPATITIS BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983 (RATES PER 10 000 OF THE LOCALITY POPULATIONS)

(*The Gastro-intestinal Disease Table*)

Local Authority	Amoebiasis		Cholera		Hepatitis (Type A)		Hepatitis (Type B)		Salmonellosis		Shigellosis		Typhoid	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Brisbane	9	0.1	..	..	50	0.7	52	0.7	113	1.6	30	0.4	1	< 0.1
Bundaberg	..	..	..	..	3	0.9	1	0.3	6	1.8	1	0.3	..	..
Cairns	..	..	..	..	15	4.0	13	3.5	22	5.9	2	0.5	..	..
Gladstone	..	..	..	..	5	2.2	..	..	6	2.6	..	..	..	..
Gold Coast	..	..	..	..	6	0.5	3	0.3	1	0.1	..	..	..	..
Ipswich	..	..	..	..	8	1.1	..	..	12	1.7	..	..	..	..
Mackay	..	..	..	..	5	2.3	1	0.5	4	1.9	..	..	..	..
Maryborough	..	..	..	..	3	1.4	..	..	1	0.5	..	..	..	..
Mount Isa	..	..	..	..	4	1.5	..	..	1	0.4	6	2.3	..	..
Rockhampton	..	..	1	0.2	..	..	..	..	5	0.9	..	..	..	..
Toowoomba	..	..	..	..	5	0.7	1	0.1	1	0.1	..	..	1	0.1
Townsville	..	..	..	..	11	1.3	6	0.7	18	2..1	1	0.1	..	..
Torres*	..	..	..	..	7	11.2	3	4.8	3	4.8	..	..	3	4.8
Other Local Authorities	6	0.1	2	< 0.1	88	0.9	24	0.2	215	2.2	24	0.2	..	..
Total	15	0.1	3	< 0.1	210	0.9	104	0.5	408	1.8	64	0.3	5	< 0.1

* Population is less than 10 000.

GEOGRAPHIC OCCURRENCE OF NOTIFIABLE ARTHROPOD-BORNE DISEASES BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983 (RATES PER 10 000 OF THE LOCALITY POPULATIONS)

(*The Arthropod-borne Disease Table*)

Local Authority	Dengue		Epidemic Polyarthritis		Filariasis		Malaria		Murine Typhus		Scrub Typhus		Tick Typhus		Non-Epidemic Typhus (type not recorded)	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Brisbane	1	< 0.1	24	0.3	..	..	61	0.9	..	..	3	< 0.1	1	< 0.1	5	0.1
Bundaberg	..	..	6	1.9	..	..	..	..	..	..	..	..	..	..	..	..
Cairns	36	9.7	28	7.5	..	..	14	3.8	..	..	2	0.5	..	..	..	..
Gladstone	..	..	5	2.2	..	..	..	..	..	..	..	..	..	..	..	..
Gold Coast	..	..	2	0.2	..	..	2	0.2	..	..	..	..	..	..	..	..
Ipswich	..	..	..	..	..	..	3	0.4	..	..	..	..	..	..	..	..
Mackay	3	1.4	20	9.2	..	..	2	0.9	..	..	1	0.5	..	..	..	..
Maryborough	..	..	6	2.8	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	..	..	3	1.2	..	..	1	0.4	..	..	..	..	..	..	..	..
Rockhampton	..	..	31	5.8	..	..	4	0.7	..	..	..	..	..	..	..	..
Toowoomba	..	..	3	0.4	..	..	7	1.0	..	..	..	..	..	..	..	..
Townsville	30	3.6	56	6.6	..	..	5	0.6	..	..	..	..	..	..	..	..
Torres*	1	1.6	..	..	2	3.2	49	78.4†	..	..	..	..	..	..	..	..
Other Local Authorities	30	0.3	134	1.4	..	..	39	0.4	1	< 0.1	5	< 0.1	1	< 0.1	..	..
Total	101	0.4	318	1.4	2	< 0.1	187	0.8	1	< 0.1	11	< 0.1	2	< 0.1	5	< 0.1

* Population is less than 10 000.

† Does not take into account the movement of people between the Torres Local Authority Area and Papua New Guinea.

GEOGRAPHIC OCCURRENCE OF NOTIFIABLE OCCUPATIONAL DISEASES BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983

(RATES PER 100 000 OF THE LOCALITY POPULATIONS)

(The Occupational Disease Table)

Local Authority	Brucellosis		Leptospirosis		Q. Fever	
	No.	Rate	No.	Rate	No.	Rate
Brisbane	3	<0.1	14	0.2	42	0.6
Bundaberg	..	..	1	0.3	..	..
Cairns	..	..	15	4.0	3	0.8
Gladstone	..	..	..	..	..	..
Gold Coast	..	..	2	0.2	2	0.2
Ipswich	..	..	2	0.3	13	1.8
Mackay	..	..	1	0.5	2	0.9
Maryborough	..	..	1	0.5	2	0.9
Mount Isa	..	..	1	0.4	2	0.1
Rockhampton	..	..	..	..	6	1.1
Toowoomba	..	..	10	1.4	4	0.5
Townsville	2	0.2	2	0.2	4	0.5
Torres*	..	..	2	3.2	..	..
Other Local Authorities	..	..	16	0.2	65	0.7
Total	5	<0.1	67	0.3	145	0.6

* Population is less than 10 000.

SEX DISTRIBUTION BY OCCUPATION OF THE THREE NOTIFIABLE OCCUPATIONAL DISEASES 1st JULY, 1982 TO 30th JUNE, 1983

(The Employment Table)

Occupation	Brucellosis				Leptospirosis				Q. Fever			
			Total				Total				Total	
	Male	Female	No.	%	Male	Female	No.	%	Male	Female	No.	%
Employed in the meat industry	2	..	2	40.0	15	..	15	22.4	74	4	78	53.8
Employed in the farming industry	..	..	..	..	5	..	5	7.5	11	3	14	9.7
Veterinarian	..	..	..	..	..	..	..	..	1	..	1	0.7
Nurse	..	..	..	..	..	..	..	..	..	2	2	1.4
Housewife	..	..	..	..	..	..	..	..	..	1	1	0.7
Unemployed/pensioner/retired	..	..	..	..	2	..	2	3.0	1	1	2	1.4
Other occupations	..	1	1	20.0	9	2	11	16.4	10	..	10	6.9
Not recorded	1	1	2	40.0	27	7	34	50.7	32	5	37	25.5
Total	3	2	5	100.0	58	9	67	100.0	129	16	145	100.0

THE TYPES OF MENINGITIS AND ENCEPHALITIS WHICH OCCURRED BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983

(The Neurological Diseases Table)

Disease	Type	Number of Cases
Encephalitis	Herpes	2
	" Viral "	3
	Not recorded	5
	Total Cases	10
Meningitis	Primary amoebic	1
	Haemophilus	7
	Meningoccal	4
	Mycoplasma	1
	Pneumococcal	3
	Staphylococcal (*Staph. epidermidis*)	1
	Streptococcal (*Strep. faecalis*)	1
	" Bacterial "	2
	"Aseptic "	2
	" Viral "	17
	Not recorded	1
	Total Cases	40

PERCENTAGE OF LABORATORY REPORTED CASES OF 12 NOTIFIABLE DISEASES WHICH WERE NOTIFIED BY MEDICAL PRACTITIONERS BETWEEN 1st JULY, 1982 AND 30th JUNE, 1983

(The Notification Rate Table)

Disease	Laboratory reported cases	Notified cases	Percentage of laboratory reported cases notified
Amoebiasis	5	1	20·0
Cholera	1	1	100.0
Hepatitis A	170	17	10.0
Hepatitis B	35	2	5.7
Salmonellosis	51	18	35.3
Shigellosis	21	1	4.8
Dengue	36	2	5.6
Murine Typhus	1	1	100.0
Scrub Typhus	2	..	..
Brucellosis	3	..	..
Leptospirosis	62	3	4.8
Q. Fever	133	11	8.3

DRUGS AND POISONS SECTION

LEGISLATION

The Poisons Regulations of 1973

Five amendments were made to these Regulations.

A major amendment re-classified a range of therapeutic substances to allow their sale by pharmacists without a prescription. This move will allow the public to make greater use of the expertise of pharmacists. Advertising of the products is prohibited and the pharmacy must label the product with the pharmacy name, patient's name, date of sale and directions for use.

DRUGS OF DEPENDENCE UNIT

This unit was officially formed during the year with a Senior Inspector in charge. The unit has the responsibility to oversee the Methadone Programme and act on information obtained from prescriptions, computer returns and other sources regarding breaches of the legislation.

ADDICTS

The number of addicts registered on the Methadone Programme again increased substantially. The total of 854 compared with last year's total of 524.

A Methadone Programme based at the Cairns Base Hospital was commenced. As anticipated a large number of addicts have come forward to receive treatment.

The following tables illustrate addicts receiving drug treatment:—

ADDICT DISTRIBUTION AS PERCENTAGE PER CENTRE

Centre	Male	Female
Brisbane	66.19	62.42
Gold Coast	11.33	12.08
Sunshine Coast	5.75	8.39
Mackay	3.06	2.35
Townsville	1.44	0.67
Cairns	7.01	8.72
Other	5.22	5.37
	100.00%	100.00%

ADDICT AGE DISTRIBUTION AS PERCENTAGE

Age	Male	Female
0–14 years	0.00	0.00
15–19 years	1.44	8.39
20–24 years	26.26	44.63
25–29 years	50.35	34.90
30–34 years	16.55	6.71
35–39 years	5.04	4.03
40+ years	0.36	1.34
	100.00%	100.00%

DANGEROUS DRUGS

As foreshadowed in last year's report, stricter controls have been placed on Dilaudid. The reason for these controls is seen in the following table. Their effectiveness will not be seen until next year's report.

Tablet	Year ending 31–12–81	Relationship to Previous Year	Year ending 31–12–82	Relationship to Previous Year
Palfium	89 320	10% Decrease	90 240	1% Increase
Dilaudid	27 340	18% Increase	48 830	79% Increase
Methodone 5 mg	219 320	3% Increase	201 920	8% Decrease
Methadone 10 mg	178 480	29% Increase	217 020	22% Increase
Percodan	174 440	20% Increase	256 020	47% Increase

PRESCRIPTIONS

Receipts of cancelled prescriptions for dangerous drugs continue to form the basis of our surveillance of the use of these drugs.

Computerization of the data obtained in this way has not proceeded as rapidly as was hoped, but progress has been made, staff training is under way and the system will be operational early in the new financial year.

FORGERIES

During the year, 110 forged prescriptions were detected. The number last year was 70.

The system in use as reported last year to alert pharmacists to the detection of a forged prescription has continued. Our thanks go to the responsible parties for this worthwhile service.

It has been found necessary because of the increasing number of forgeries to warn medical practitioners to safeguard their prescription forms and pharmacists that when they are not familiar with the practitioner's writing or the patient is not known to check with the practitioner to ensure that the prescription is genuine.

INSPECTION OF PHARMACIES, HOSPITALS, ETC.

Alterations have been made within the Division in an endeavour to improve the rate of routine inspections generally in the H.Q. district. It is hoped that this alteration will result in at least yearly inspections being made.

BREAKING AND ENTERING

The following table illustrates the position of reported breaking and entering. The total represents a sharp increase in Brisbane where the total reported last year was 15.

——	Brisbane	Country
Pharmacies	41	43
Medical Practitioners	2	..
Hospital Dispensaries	..	1
Drug Wholesalers	..	..
Totals	43	44

THERAPEUTIC GOODS MANUFACTURERS

Two new manufacturing premises were opened, one by a firm as the final phase of its development and one by a company, new to Queensland, in association with an established local concern.

These plants should appreciably extend the pharmaceutical product range produced in Brisbane.

LABELLING AND PACKAGING OF DRUGS AND POISONS

Legislation requires child-resistant closures to be used on some specified poisons as well as certain therapeutic substances. Despite extensive experimentation with wadding materials and capping torques some of these closures are not successful when used to close containers of mineral turpentine and some other hydrocarbon solvents. The exact cause of the failure has not been determined, but after a period of exposure to relatively high temperatures the caps become loose and can be easily removed. The search for a solution to this problem is continuing.

AERIAL SPRAYING

Officers of this Department attended meetings of pilots, growers and other interested parties during the year to explain in some detail our requirements regarding the application of chemicals in general and the pesticide chlordimeform in particular to cotton crops.

Many complaints have been investigated regarding drift from the aerial application of pesticides and herbicides. Samples have been taken, but in only one instance was it considered there was sufficient evidence to link the pesticide residue with a particular application. The papers in this instance have been forwarded to the Solicitor-General.

PEST CONTROL OPERATORS

The number of licensed pest control operators has increased to 963. This is 89 more than last year. One person was convicted and fined for operating as a pest control operator whilst not licensed.

Ninety-one samples of pesticides were obtained from operators in the field. Thirty-six of these were found to conform to the strength and type of pesticide.

Forty-seven samples were found to be unsatisfactory, in that the pesticide was below the stated strength or contained traces of other pesticides. In these instances a written warning was issued that more care was necessary in formulation or handling emulsions and where appropriate proper cleansing of utensils and equipment.

The results of eight samples are awaited.

DESTRUCTION OF DRUGS

Our officers continue to supervise the destruction of cannabis and implements for its use which have been forfeited to the Crown.

Total destructions this year totalled 3 827. Last year the figure was 3 079.

SAMPLING

Four hundred and forty-five chemical samples and two bacteriological specimens were submitted for assay. Survey samples obtained in the market place totalled 156, of which 79 were soap, 59 cigarettes or tobacco and 18 baby powder. The remaining substances originated from field officers' activities or from consumer request and covered a broad spectrum of community usage.

PROSECUTIONS 1982–1983

The result of prosecutions concluded are shown in the following table:—

Court	Offence	Fine	Court Costs	Other Costs
Southport	Pest Control Operator having pesticides accessible to persons on his vehicle	$200	$22	$25
Brisbane	Stating false name to medical practitioner	$100	$22	$40
	Stating false name to medical practitioner	$100		
	Stating false name to medical practitioner	$75	$22	$30
Southport	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40	$22	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
Brisbane	Selling a poison in a food container	$100	$22	$91
	Selling a poison in a food container	$100		
Bundaberg	Carrying out pest control whilst not being licensed	$100	$11	
	Carrying out pest control whilst not being licensed	$50	$11	
Cleveland	Selling a restricted drug to an unauthorized person	$80	$12.33	
	Storing a restricted drug so as to be accessible to unauthorized persons	$80	$12.32	
Southport	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$75	$24.65	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$75		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$75		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$75		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$75		
	Stating a false address to a medical practitioner	$75		
	Stating a false address to a medical practitioner	$75		
	Stating a false address to a medical practitioner	$75		
Eidsvold	Selling a Schedule 3 poison whilst not being authorized so to do	$100	$24.65	
Brisbane	Discharging a poison into a watercourse	$200	$24.65	
Toowoomba	Selling a compounded drug not in accordance with the demands of the purchaser	$125.35	$24.65	$91
	Selling a restricted drug whilst not being authorized so to do	$100	$24.65	
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
	Selling a restricted drug whilst not being authorized so to do	$100		
Dalby	Selling a restricted drug whilst not being authorized so to do	$40	$24.65	
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
Murgon	Selling a restricted drug whilst not being authorized so to do	$40	$24.65	
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
	Selling a restricted drug whilst not being authorized so to do	$40		
Gladstone	Selling by wholesale, a Schedule 2 poison whilst not being licensed so to do	$50	$24.65	$1,273

PROSECUTIONS 1982–1983—*continued*

Court	Offence	Fine	Court Costs	Other Costs
Southport	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$100	$24.65	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$100		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$100		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$100		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$150	$24.65	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$150		
Gladstone	Selling a Schedule 2 poison whilst not being licensed so to do	$50	$12.33	$45.50
	Selling a Schedule 3 poison whilst not being licensed so to do	$50	$12.33	$45.50
Nambour	Altering a prescription for a dangerous drug	$250	$24.65	
	Uttering an altered prescription	$250		
Southport	Stating a false name to a medical practitioner	$50	$24.65	
	Failure to advise medical practitioner of scripts for restricted drugs received within two months	$50		
	Failure to advise medical practitioner of scripts for restricted drugs received within two months	$50		
	Failure to advise medical practitioner of scripts for restricted drugs received within two months	$50		
Yeppoon	Selling a Schedule 3 poison whilst not being licensed so to do	No Fine	$24.65	$91
Southport	Stating a false name to a medical practitioner	$150	$24.65	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$150		
	Stating a false name to an officer	$50		
Beenleigh	Stating a false name to an officer	$100	$24.65	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$100		
Southport	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40	$24.65	
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
	Failure to advise medical practitioner of scripts for dangerous drugs received within two months	$40		
Caloundra	Altering a prescription for a dangerous drug	No penalty imposed. Defendant placed on probation for two years and required to undergo psychiatric and medical treatment.		
	Altering a prescription for a dangerous drug			
	Altering a prescription for a dangerous drug			
	Altering a prescription for a dangerous drug			
	Altering a prescription for a dangerous drug			
	Altering a prescription for a dangerous drug			
Brisbane	Unauthorized possession of a dangerous drug	No penalty imposed. Defendant placed on probation for 18 months		
	Unauthorized possession of utensil for consumption of a dangerous drug			
Totals		$5,950.35	$575.71	$1,732

SECTION OF FOOD SUPERVISION

The food section is directly engaged in the formulation of standards covering food quality, food labelling and advertising, food packaging materials and food hygiene, and in the drafting of appropriate legislation to enable the enforcement of these standards. The activities of the section are devoted to the maintenance of a safe and wholesome food supply, truthfully described and presented in a manner affording utmost protection against contamination of any kind. State Health Inspectors enforce those standards covering food quality, labelling and advertising and food packaging materials, whilst Local Government Health Surveyors are responsible for the enforcement of food hygiene standards.

Throughout the year, State Health Inspectors have carried out the inspection and sampling of foods, food packaging materials, containers and apparatus, the condemnation, seizure and destruction of unacceptable foods, the checking of food labelling and advertising, the investigation of food poisoning outbreaks and of complaints about food quality. These activities have been constrained by budgetary and staffing restrictions not only in regard to the Food Section's surveillance work but also in regard to the laboratories which play such a vital part in the maintenance of effective food surveillance programmes.

FOOD LEGISLATION

Prior to 1st July, 1982, food surveillance activities were carried out under the provisions of "*The Health Act of* 1937" and the Food and Drug Regulations 1977 and other associated Regulations made under the Health Act. A new era in food law and the enforcement of that law began on 1st July, 1982, with the commencement of the *Food Act* 1981 together with the Food Standards Regulations 1982 and the Food (General) Regulations 1982. From and including that day, the provisions of the Health Act relating to food and the Food and Drug Regulations were repealed.

The *Food Act* 1981 and the Regulations made under that Act deal exclusively with food and they incorporate the provisions of the Model Food Act and the Model Food Standards Regulations drawn up on the instruction of the 1975 Conference of the Federal, State and Territory Health Ministers and recommended for adoption by the States and Territories for the purpose of attaining uniform food law throughout Australia. Work on the development of the Model Food Act commenced in 1976 and the final draft of the Model Act was approved in 1981. This was followed by the approved draft of the Model Food Standards Regulations in 1982. A Comonwealth, State, Territory Joint working party is now engaged in the drawing up of the Model Food Hygiene Regulations to complete the overall package of Model Food Law and the release of a final approved draft of the Model Food Hygiene Regulations is awaited in order that Queensland can in turn complete it's package of "up-to-date" food law by replacing the existing unsatisfactory and outmoded Food Hygiene Regulations of 1976 made under the Health Act and continued on as a stop-gap measure under the provisions of "*The Acts Interpretation Acts*, 1954 *to* 1962", as if they had been made under the Food Act.

With the commencement of the Food Act and its Regulations on 1st July, 1982, it was decided that a period of grace of 12 months would be allowed from that date before the enforcement of any new labelling provisions was executed in order that food manufacturers, packers, vendors and importers could familiarize themselves with the Act and Regulations and meet the requirements of the legislation by 30th June, 1983.

In accordance with the amendment of the Model Food Standards Regulations by the National Health and Medical Research Council during the 1982–83 year, the Queensland Food Standards Regulations 1982 were similarly amended by the incorporation of new and revised food standards to keep them in line with the Model Document.

The Chief Inspector of Foods attended all meetings of the Food Standards Committee of the National Health and Medical Research Council held in Canberra during the year. The Health Department's Advisory Committee on Food Standards examined all proposed new and revised food standards submitted throughout the year to the States and Territories by the Food Standards Committee of the National Health and Medical Research Council, and comments and recommendations in regard thereto were returned to that Committee. The Chief Inspector also attended the meeting held in Canberra of a Working Party on a proposed National Clearance System for food labels.

An officer, who is the Queensland representative on the Working Party responsible for the development of the Model Food Hygiene Regulations under the Model Food Act, attended the meetings of that Working Party in Canberra and, because he has expertise in Regulations drafting, also attended the meeting in Sydney of a Working Party to standardize the method of expressing microbiological food standards. Two officers presented a half-day workshop session on the practical application of the powers of Local Government Health Surveyors under the Food Act at the Annual Conference of the Institute of Health Surveyors held in Rockhampton and a similar seminar of one day's duration was presented for Health Surveyors of the Brisbane City Council. A lecture on the labelling provisions of the Food Act and the Food Standards Regulations was presented by an officer to the Institute of Packaging.

FOOD SAMPLING AND FOOD LABELLING

In addition to the thousands of legal food samples which were obtained during the year by officers and either held by them or submitted for examination to the Government Chemical Laboratory or the Laboratory of Microbiology and Pathology in the policing of food standards and upon the results of analyses of which the majority of prosecutions were based, 6 069 samples were submitted to these laboratories as routine survey checks on composition, quality control, pesticide levels, toxic metal levels, presence of toxins, bacterial contamination and labelling requirements. Details of the samples submitted to the laboratories are given in the respective reports of these laboratories. Those samples held by officers were items which were suitable for presentation directly to a Court during a prosecution and were usually associated with labelling breaches or foreign matter in food breaches.

A food sampling survey was again conducted on behalf of the National Health and Medical Research Council for the purpose of assessing noxious substances in food. These samples are forwarded to Sydney for analysis by the Australian Government Analytical Laboratory and sample figures are not included in this report.

Even though a period of grace of 12 months to comply with new food labelling provisions was allowed from 1st July, 1982, on which day the *Food Act* 1981 and the Food Standards Regulations 1982 were commenced, the continuing label survey has revealed that many food manufacturers, packers, vendors and importers have made little or no effort to comply with many provisions of the Act and its Regulations and prosecution and/or seizure of products would now seem necessary.

Failure to comply lies mainly in the following areas:—

(a) Name and business address in Australia of the manufacturer or packer or vendor or, in the case of imported food, of the importer not shown;

(b) Prescribed name of the food not shown or, where there is no prescribed name, the designation given to the food is not appropriate and is misleading, deceptive or false;

(c) List of ingredients not stated or, if stated, the list is not complete or not correct;

(d) No production lot identification and no identification of the place where the food was prepared;

(e) The making of unacceptable claims about the food or its ingredients;

(f) The percentage alcohol content of intoxicating beverages not stated.

COMPLAINTS

One thousand, three hundred and forty-five complaints about food were made by consumers and were investigated by State Health Inspectors. The main causes of complaint were that the food contained foreign matter, that it was adulterated, had an uncharacteristic taste, caused the symptoms of food poisoning or bore deceptive statements on the label. As the result of these investigations, a number of prosecutions were instituted. Details of prosecutions are listed in the table which forms part of this report.

The types of foreign matter found by consumers in food which they had purchased included cigarette butts, rat excreta, glass, wood, flies, metal bolt, cardboard, pieces of metal, nail, ballpoint pen nib, moth, mould and an adhesive dressing.

Twenty-three complaints were received about very bitter tasting zucchinis which caused a form of food poisoning when consumed. Toxic cucurbitacins have been identified by the Government Chemical Laboratory in the bitter zucchinis and it is considered that the problem is caused by a genetic abnormality in the seed. Whilst the investigations at consumer level were conducted by Health Department officers, the major task of investigation at grower level in establishing the varieties of zucchinis involved and the cause of the problem and attemping to find a solution to this problem which has had an adverse affect on the popularity in the market-place of zucchinis was carried out by specialist officers of the Department of Primary Industries.

Based on complaints from consumers of fish, nine episodes of ciguatera poisoning involving 65 people were investigated. In Queensland, this problem is associated mainly with the consumption of mackerel, with other fish species playing a very minor role.

FOODS CONDEMNED AND SEIZED

During the year, Inspectors operating throughout the State have certified as unfit for human consumption and supervised the destruction of 45 tonnes 863 kilograms by weight plus 9 437 litres by volume, plus 14 718 packages of unspecified weights of assorted foods.

In addition, Inspectors stationed at the Brisbane Fish Markets and at District Offices have condemned and destroyed the following quantities of seafoods judged as being unfit for human consumption:—25 tonnes 892 kilograms of assorted fish, 4 862 crabs and 500 dozen oysters.

As part of the penalty imposed in a prosecution, 954 bottles of vanilla essence which had been seized were forfeited to the Crown and were destroyed.

Because they contained alcohol by volume in excess of that permitted, 9 024 bottles of Brewed Soft Drink were seized from a Manufacturer and, at the close of the year, were awaiting destruction.

During the year, an Australia-wide recall of canned champignons from Taiwan, which were suspected of causing several cases of botulism in New South Wales and a proportion of which cans were found to leak when tested under pressure, was carried out and officers of this Department co-operated in ensuring the success of the recall.

PROSECUTIONS

The details of prosecutions concluded during the year are set out in the attached table. This shows a total of 233 prosecutions of which 224 were successfully concluded. Decisions were given against the Crown in eight of these matters and one was withdrawn.

At the close of the 1982–83 year, another 49 prosecutions based on investigations carried out during the year were pending. The following is a breakdown of and comments on the prosecutions listed in the table:—

Seafoods

Thirteen prosecutions were concluded against vendors of seafoods for selling fish fillets not of the species requested by the purchaser. In two cases the decisions were given against the Crown and a similar charge of another incident involving the same species of fish and against one of the successful defendants was consequently withdrawn. An oyster merchant was prosecuted for selling oysters in unlabelled containers.

Meat and Meat Products

One hundred and thirty-nine prosecutions were concluded against vendors of these foods, and in three cases the decisions were given against the Crown. Sixty of the charges concerned the false designation of meat products in relation to the species of meat contained therein and 79 concerned failure to comply with prescribed standards covering preservative levels, minimum meat content and maximum fat levels in manufactured products and the use of an additive not permitted in a particular product.

Flour and Bakery Products

Of the 35 prosecutions concluded during the year against members of this section of the overall Food Industry, 18 were in relation to bread which did not comply with the prescribed standard; 11 were in relation to meat pies which were deficient in meat content; and six were in relation to breaches of labelling provisions. In three of the prosecutions, the decisions were given against the Crown.

Liquor

Three licensees of liquor premises were prosecuted for selling spirits not complying with prescribed standards, four for not denaturing waste beer and one for selling beer in a glass which had not been cleaned. One wine maker was prosecuted for selling wine which did not comply with the prescribed standard.

Beverages/Essences

A fruit juice packer was prosecuted on seven counts of using a prohibited additive in fruit juices and fruit juice drinks. The additive was the antioxidant, erythorbic acid, the use of which is permitted in certain cured meat and seafood products. On cursory analysis, it appears to be vitamin C but it has no vitamin value. Its use in juices is not permitted in any State of Australia. A manufacturer of essences was prosecuted for falsely describing imitation vanilla essence as real vanilla essence.

Dairy Products

One milk producer was prosecuted for selling milk which did not comply with the prescribed standard and one cheese manufacturer for selling cheese which contained a preservative in contravention of the prescribed standard. The cheese case was unusual in that the Health Department charged a Queensland Dairy Company with the offence. The Queensland defendant, making use of the provisions of section 52—Right of defendant to have third party before Court—of the new Food Act, brought before the Court the New South Wales based Dairy Company which made and packaged the cheese for and in the name of the Queensland manufacturer. The Court convicted the New South Wales Company and imposed the penalty and costs on that Company.

Miscellaneous

There were 18 prosecutions in relation to food containing foreign matter and the nature of the foreign matter is described under the heading "complaints" in this report.

Four retailers were prosecuted for removing use-by date marks on food or altering or obliterating such date-marks in order to deceive intending purchasers in regard to the freshness of the food.

A vegetable processor was prosecuted for having an excessive amount of preservative in peeled raw sliced potatoes.

Other prosecutions were:—Smoking in a food manufacturing establishment (1); Refusing to allow an Inspector to make a copy of a document (1); Refusing to sell a sample of food or allow it to be taken (1).

PROSECUTIONS 1982–1983

Court	Offence	Anal. Fees	Fine	Court Costs	Prof. Costs
		$	$	$	$
Atherton	Sale of beef sausages containing excess preservative	91.00	100.00	24.65	
Ayr	Sale of minced meat containing preservative	91.00	200.00	22.00	
	Sale of beef sausages containing other meat species	91.00	10.00	22.00	
	Sale of pork sausages containing other meat species	91.00	10.00	12.33	
	Sale of minced meat containing preservative	91.00	100.00	12.32	
	Sale of understrength whisky	91.00	75.00	24.65	
	Sale of understrength rum	91.00	75.00	24.65	
Barcaldine	Sale of milk deficient in milk fat and total solids	91.00	400.00	22.00	
Beenleigh	Sale of meat pies deficient in meat	91.00	100.00	24.65	
	Sale of minced meat containing preservative	91.00	200.00	22.00	
	Sale of sausages containing excess preservative	91.00	200.00	..	
Blackall	Sale of beef sausages deficient in meat	91.00	100.00	22.00	
Blackwater	Sale of beef sausages containing other meat species	91.00	50.00	24.65	
Brisbane	Sale of pork sausages containing other meat species	91.00	50.00	22.00	
	Sale of minced meat containing preservative	91.00	125.00	22.00	
	Sale of beef sausages containing excess preservative	91.00	50.00	22.00	
	Sale of fish not of specie demanded	91.00	100.00	11.00	
	Sale of fish not of specie demanded	91.00	100.00	11.00	
	Sale of minced meat containing preservative	91.00	125.00	22.00	
	Sale of imitation vanilla essence falsely described as pure vanilla essence	91.00	150.00	24.65	
		954 bottles forfeited to the Crown			
	Sale of pork sausages containing other meat species	91.00	500.00	22.00	30.00
	Sale of pork sausages containing other meat species	91.00	100.00	22.00	20.00
	Sale of apple slice containing cigarette butt	91.00	100.00	22.00	20.00
	Sale of sausages deficient in total meat excess fat and starch	91.00	250.00	24.40	
	Sale of beef sausages containing other meat species	91.00	100.00	26.00	
	Sale of fish not of specie demanded	91.00	200.00	26.00	
	Sale of sausages containing excess preservative		100.00		
	Sale of fish containing rodent excreta	91.00	250.00	22.00	100.00
	Sale of sausages deficient in total meat and containing excess preservative	91.00	250.00	24.65	
	Sale of fish not of specie demanded	91.00	150.00	24.65	
	Sale of sausages containing excess preservative	91.00	200.00	24.65	
	Sale of sausages deficient in total meat and containing excess preservative	91.00	75.00	24.65	
	Sale of sausages deficient in total meat	91.00	50.00	24.65	
	Sale of beef sausages containing excess preservative	91.00	500.00	24.65	
	Sale of meat pie deficient in meat	91.00	25.00	24.65	
	Sale of meat pies deficient in meat		Dismissed		
	Sale of sausages containing excess preservative	91.00	175.00	24.60	
	Sale of minced meat containing preservative	91.00	250.00	24.65	
	Sale of minced beef containing other meat species	91.00	20.00	24.65	
	Sale of sausages containing excess preservative	91.00	400.00	24.65	

PROSECUTIONS 1982–1983—*continued*

Court	Offence	Anal. Fees	Fine	Court Costs	Prof. Costs
		$	$	$	$
Brisbane—*continued*	Sale of minced meat containing preservative	91.00	300.00	24.65	
	Sale of lamb and pork sausages containing other meat species	91.00	200.00	24.65	
	Sale of pork minced meat containing other meat species	91.00	250.00	24.65	
	Sale of pork minced meat containing other meat species	91.00	250.00	24.65	
	Sale of sausages containing excess preservative	91.00	50.00	24.65	
	Preparation for sale of milk bread deficient in milk solids	91.00	300.00	24.65	
	Sale of milk bread deficient in milk solids	91.00	60.00	24.65	
	Possession for sale date and nut roll incorrectly labelled		40.00	24.65	
	Sale of wholemeal bread deficient in crude fibre	91.00	50.00	24.65	50.00
	Sale of bread incorrectly labelled		30.00		
	Sale of minced meat containing preservative	91.00	250.00	24.65	
	Sale of wholemeal milk bread deficient in milk solids	91.00	200.00	24.65	
	Sale of beef sausages containing other meat species	91.00	200.00	24.65	
	Sale of High Fibre milk bread deficient in milk solids	91.00	100.00	24.65	
	Sale of cooked chicken containing an adhesive dressing	91.00	250.00	24.65	
	Sale of beef sausages containing other meat species	91.00	200.00	24.65	
Bundaberg	Sale of minced meat containing preservative	91.00	200.00	22.00	
	Sale of beef sausages containing other meat species	91.00	50.00	22.00	
Caboolture	Sale of bread containing rodent excreta	81.00	100.00	22.00	
	Sale of fish not of specie demanded		Dismissed		
	Sale of pork sausages containing other meat species and deficient in meat	91.00	200.00	24.65	
	Sale of sausages containing other meat species	91.00	100.00	22.00	
	Sale of meat pie deficient in meat		Dismissed		
	Sale of milk bread deficient in milk solids		Dismissed		
	Sale of meat pie deficient in meat	91.00	100.00	24.65	
	Sale of meat pie deficient in meat	91.00	100.00	24.65	
Cairns	Sale of sausages containing excess preservative	91.00	150.00	22.00	
	Sale of sausages containing excess preservative	91.00	100.00	22.00	
	Sale of beef sausages containing other meat species and excess preservative	91.00	100.00	22.00	
	Sale of sausages containing excess preservative and deficient in meat	91.00	200.00	22.00	
	Sale of beef sausages containing other meat species	91.00	50.00	22.00	
	Sale of bread containing cigarette butt	91.00	200.00	24.65	
	Sale of bread incorrectly labelled		300.00	24.65	
Chinchilla	Sale of meat pies deficient in meat	91.00	40.00	22.00	
Cleveland	Sale of sausages containing excess preservative	91.00	250.00	12.33	
	Sale of minced meat containing preservative	91.00	250.00	12.32	
	Sale of pork and beef sausages containing excess preservative and deficient in meat	91.00	250.00	25.67	
	Sale of sausage meat rissole containing excess preservative	91.00	250.00	25.67	
Coolangatta	Sale of minced meat containing preservative	91.00	200.00	24.65	
Eidsvold	Sale of pork sausages containing other meat species		Dismissed		
Emerald	Sale of milk bread deficient in milk solids	91.00	75.00	24.65	
	Sale of milk bread incorrectly labelled		25.00		
Gladstone	Sale of sausages containing excess preservative and excess fat	91.00	200.00	24.65	
	Obscuring a date mark on packed food		80.00	12.33	
	Sale of chocolates which did not bear a date mark		150.00	12.32	
Hervey Bay	Sale of minced meat containing preservative	91.00	50.00	22.00	
Holland Park	Sale of sausages containing excess preservative	91.00	150.00	24.65	
	Sale of sausages containing excess preservative	91.00	300.00	24.65	
	Sale of beef sausages containing other meat species	91.00	100.00	24.65	
	Sale of beef sausages containing other meat species	91.00	200.00	24.65	
Home Hill	Sale of chicken and onion rissoles which did not contain chicken	91.00	80.00	24.65	
	Sale of milk bread deficient in milk solids	91.00	100.00	24.65	
Hughenden	Serving liquor in unwashed glass		20.00	22.00	
	Sale of beef sausages containing excess preservative	91.00	30.00	22.00	
Inala	Sale of soft drink containing glass	91.00	100.00	22.00	
	Sale of fish not of specie demanded	91.00	150.00	22.00	
	Sale of bread containing wood fragment	91.00	300.00	22.00	
	Sale of beef sausages containing other meat species	91.00	200.00	24.65	
	Sale of fruit juice containing an additive not permitted (erythorbic acid)	91.00	100.00	24.65	
	Sale of fruit juice containing an additive not permitted (erythorbic acid)	91.00	100.00		
	Sale of fruit juice drink containing an additive not permitted (erythorbic acid)	91.00	100.00		
	Sale of fruit juice drink containing an additive not permitted (erythorbic acid)	91.00	100.00		
	Sale of fruit juice drink containing an additive not permitted (erythorbic acid)	91.00	100.00		
	Sale of fruit juice drink containing an additive not permitted (erythorbic acid)	91.00	100.00		
	Sale of fruit juice drink containing an additive not permitted (erythorbic acid)	91.00	100.00		
Ingham	Sale of pork sausages containing other meat species	91.00	75.00	22.00	
Innisfail	Sale of pork sausages containing other meat species	91.00	60.00	22.00	
Ipswich	Sale of beef sausages containing other meat species	91.00	125.00	22.00	
	Sale of fish not of specie demanded	91.00	100.00	22.00	
	Sale of minced meat containing preservative	91.00	250.00	22.00	
	Sale of sausage meat containing preservative—not declared on label	91.00	60.00	22.00	

PROSECUTIONS 1982–1983—*continued*

Court	Offence	Anal. Fees	Fine	Court Costs	Prof. Costs
		$	$	$	$
Ipswich—*continued*	Sale of sausage roll containing a fly	91.00	40.00	22.00	50.00
	Alteration of use by date mark		50.00	22.00	
	Sale of pork sausages containing other meat species	91.00	100.00	22.00	
	Sale of fish not of specie demanded	91.00	75.00	22.60	
	Sale of fish not of specie demanded	91.00	75.00		
	Sale of beef sausages containing other meat species	91.00	75.00	22.60	
	Sale of minced meat containing preservative	91.00	75.00		
	Sale of milk bread deficient in milk solids	91.00	50.00	24.65	
	Sale of sausages containing excess preservative	91.00	50.00	24.65	
	Sale of beef sausages containing other meat species	91.00	50.00	24.65	
	Sale of white milk bread deficient in milk solids	91.00	30.00	24.65	
	Sale of fish not of specie demanded	91.00	75.00	24.65	
	Sale of fish not of specie demanded	91.00	75.00		
	Sale of sausages deficient in meat	91.00	250.00	24.65	
	Sale of apricot slice containing metal bolt	91.00	100.00	24.65	
Kallangur	Sale of meat pies deficient in meat	45.00	40.00	24.65	
	Sale of meat pies deficient in meat	45.00	40.00	24.65	
Kingaroy	Sale of sausages containing excess preservative	91.00	80.00	24.65	
	Sale of beef sausages containing other meat species	91.00	60.00	24.65	
	Sale of barbeque sausages containing excess preservative	91.00	70.00	24.65	
Laidley	Sale of raw sliced peeled potatoes containing excess preservative	91.00	50.00	22.00	
Longreach	Sale of beef sausages containing other meat species	91.00	50.00	24.65	
Mackay	Sale of beef sausages containing other meat species	91.00	80.00	22.00	
	Sale of pizza containing cigarette butt	91.00	40.00	22.00	
	Sale of beef sausages containing other meat species	91.00	50.00	24.65	
	Sale of sausages containing excess preservative	91.00	100.00	24.65	
	Sale of sausages containing excess fat		100.00		
Mareeba	Sale of beef sausages containing other meat species	91.00	50.00	22.00	
Maroochydore	Sale of minced meat containing preservative	91.00	100.00	22.99	
	Sale of beef and pork sausages containing excess preservative	91.00	100.00		
Maryborough	Sale of pork sausages containing other meats		Dismissed		
	Sale of sausages containing excess preservative	91.00	100.00	22.00	
	Sale of sausages containing excess preservative	91.00	50.00	22.00	
	Sale of beef sausages containing other meat species	91.00	70.00	24.65	
	Sale of bread containing a piece of cardboard		100.00	24.65	
Monto	Beer in drip tray not denatured		250.00	22.00	
Moranbah	Sale of milk bread deficient in milk solids	91.00	75.00	22.00	
Mount Isa	Sale of sausages deficient in meat	91.00	400.00	22.00	
	Sale of pork sausages containing other meat species	91.00	200.00	22.00	
	Sale of beef sausages containing other meat species	91.00	100.00	22.00	
Mundubbera	Sale of pork croquettes containing other meat species	91.00	200.00	24.65	
	Sale of milk bread deficient in milk solids	91.00	100.00	24.65	
Murgon	Sale of sausages containing excess preservative	91.00	80.00	24.65	
Nanango	Sale of pork sausages containing other meat species	91.00	60.00	22.00	
Nambour	Sale of beef sausages containing other meat species	91.00	100.00	23.00	
	Sale of minced meat containing preservative	91.00	200.00	24.65	
Petrie	Sale of meat pies deficient in meat	91.00	40.00	24.65	
	Sale of wholemeal milk bread incorrectly labelled		40.00	24.65	
Redcliffe	Sale of sausages containing excess preservative	91.00	100.00	24.65	
	Sale of pork sausages containing other meat species	91.00	250.00	24.65	
	Failing to allow an Authorized Officer to make a copy of a document		250.00		
	Sale of sausages containing excess preservative	91.00	250.00	24.65	
	Sale of pork sausages containing other meat species	91.00	200.00	24.65	
Rockhampton	Sale of milk bread deficient in milk solids	91.00	50.00	22.00	
	Sale of milk bread deficient in milk solids	91.00	50.00	22.00	
	Sale of wholemeal milk bread deficient in wholemeal and milk solids	91.00	50.00	22.00	
	Sale of milk bread deficient in milk solids	91.00	40.00	22.00	
	Sale of beef sausages containing other meat species	91.00	85.00	24.65	
	Sale of beef sausages containing other meat species	91.00	65.00	24.65	
	Sale of beef sausages containing excess preservative	91.00	85.00	24.65	
	Sale of bread containing glass particles	91.00	200.00	24.65	
	Sale of milk bread deficient in milk solids	91.00	100.00	25.67	
	Bread not date marked				
	Sale of pork sausages containing other meat species	91.00	30.00	24.65	
	Sale of bottled oysters not labelled		65.00	24.65	
Roma	Beer in drip tray not denatured	91.00	80.00	24.60	
	Sale of understrength rum	91.00	40.00	24.65	
Sandgate	Sale of pork sausages containing other meat species	91.00	40.00	22.00	
	Sale of pork mince containing other meat species	91.00	50.00	24.65	
	Sale of chicken and prawn roll containing metal particles	91.00	100.00	24.65	
Sarina	Sale of sausages containing excess preservative	91.00	350.00	24.65	
Southport	Sale of date roll containing a nail	81.00	100.00	22.00	
	Sale of sausages containing excess fat	91.00	50.00	22.00	
	Waste beer not denatured		40.00	22.00	
	Sale of beef sausages containing other meat species	91.00	50.00	22.00	
	Sale of beef sausages containing other meat species	91.00	75.00	22.00	
	Sale of bread containing tip of ballpoint pen	91.00	100.00	22.00	
	Sale of beef sausages containing other meat species	91.00	75.00	22.00	

PROSECUTIONS 1982–1983—*continued*

Court	Offence	Anal. Fees	Fine	Court Costs	Prof. Costs
		$	$	$	$
Southport—*continued*	Smoking in bakehouse		50.00	22.00	
	Sale of hamburger beef minced meat containing other meat species	91.00	200.00	22.00	
	Sale of minced meat containing preservative	91.00	200.00	22.00	
	Sale of minced meat containing preservative	91.00	200.00	24.65	
	Sale of pork sausages containing other meat species	91.00	200.00		
	Sale of sausages containing excess preservative	91.00	200.00	24.65	
Stanthorpe	Sale of understrength wine	91.00	300.00	24.65	
Surat	Sale of sausages containing excess preservative	91.00	50.00	24.60	
Texas	Sale of sausages containing excess preservative	81.00	100.00	22.00	
Theodore	Sale of minced meat containing preservative	91.00	40.00	22.00	
Toogoolawah	Sale of beef sausages containing other meat species	91.00	80.00	22.00	
Toowoomba	Refusal to sell sample of minced meat		100.00	22.84	
	Sale of beef sausages containing excess preservative	91.00	80.00	22.00	
	Sale of beef sausages containing other meat species	91.00	60.00	22.00	
	Sale of pork sausages containing other meat species	91.00	50.00	22.00	
	Sale of cottage cheese containing sorbic acid	91.00	500.00	24.65	
	Sale of beef sausages containing excess preservative	91.00	200.00	24.65	
	Sale of minced meat containing preservative	91.00	200.00	24.65	
Townsville	Sale of beef sausage meat containing other meat species		Dismissed		
	Sale of beverage containing a house fly	91.00	50.00	22.00	
	Sale of beef sausages containing other meat species	91.00	60.00	22.00	
	Sale of minced meat containing preservative	91.00	100.00	22.00	
	Sale of minced meat containing preservative	91.00	75.00	22.00	
	Waste beer not denatured	91.00	50.00	22.00	
	Sale of beef sausages containing other meats	91.00	80.00	22.00	
	Sale of sausages containing excess preservative	91.00	75.00	22.00	
	Sale of fish not of specie demanded		Dismissed		
	Sale of fish not of specie demanded		Withdrawn		
	Sale of pork sausages containing other meat species	91.00	150.00	22.00	
	Sale of sausage meat containing excess preservative	91.00	400.00	24.65	
	Sale of pork sausages containing excess fat	91.00	250.00	24.00	
	Sale of meat pies deficient in meat	91.00	150.00	24.00	
	Sale of beef sausages containing other meat species	91.00	100.00	24.65	
	Sale of bread containing a moth	91.00	200.00	24.65	
	Sale of minced meat containing erythorbic acid	91.00	200.00	24.65	
Warwick	Sale of beef sausages containing other meat species	91.00	100.00	24.65	
Winton	Sale of pork sausages containing other meat species	91.00	100.00	24.65	400.00
Wondai	Sale of sausages containing excess preservative	91.00	80.00	24.65	
Wynnum	Sale of sausages containing excess preservative	91.00	60.00	22.00	
	Sale of mouldy apple sponge cake	91.00	300.00	24.65	
Yarraman	Sale of sausages containing excess preservative	91.00	75.00	24.65	
	Sale of sausages containing excess preservative	91.00	80.00	24.65	
Yeppoon	Sale of milk bread deficient in milk solids	91.00	40.00	22.00	
Totals		$ 18,442.00	28,568.00	4,751.44	670.00

SECTION OF ENVIRONMENTAL SANITATION

INTRODUCTION

The section of Environmental Sanitation continues to monitor environmental standards and to provide an advisory service to Local Authorities, Government Departments and the public. It also has a direct responsibility in regard to toys, paint, cooking utensils and injurious articles.

The establishment of the Brisbane District Office on 1st November, 1982, has changed the role of the Environmental Sanitation Section to the extent that staff attached to the section are now developing expertise in specialized fields while all routine work is carried out at District Office level. As well, more time is now devoted to sampling surveys in the areas of direct responsibility.

DISEASES

(a) Cholera

The surveillance of public water supplies, recreational waters and the Logan, Albert, Mary and Upper Brisbane Rivers continued during the year. The number of samples taken and the results obtained are shown in the tables below:—

ROUTINE SAMPLES EXAMINED FOR VIBRIO CHOLERAE

——	Number Examined	Number of Isolations	
		No.	%
Waters	2 199	25	1.1
Aquatic Plants	500	4	0.8
Bi-valves	3	..	..
Moore Swabs	174	4	2.3

WATERCOURSES FROM WHICH SAMPLES POSITIVE FOR V. CHOLERAE WERE OBTAINED

Watercourse	Number
Logan River	12
Palen Creek	3
Tinana Creek (Maryborough)	1
Bremer River	1
Theresa Creek (Clermont)	2
Albert River	1
Lake Kurwongbah (Petrie)	4
Mary River	1
Total	25

Departmental officers investigated three cases of Cholera during the year. The cases occurred at Rockhampton, Mount Morgan and Beaudesert. The case at Rockhampton was traced to the consumption of lettuce which had been irrigated with raw water which was contaminated with *V. cholerae* and the Beaudesert incident to swimming in the Logan River, which at that time contained the organism. In the Mount Morgan case the cause was not identified.

Following the Rockhampton case, a survey was made of 19 lettuce farms where untreated surface water was used to irrigate crops.

Nineteen samples of water were taken and examined for *V. cholerae* and *Salmonella* species. No isolations of *V. cholerae* were made but *Salmonella* sp. was found in samples taken from 14 farms.

This exercise will be repeated during next summer.

(b) Dengue Fever

In view of the threat of an outbreak of Dengue Fever in North Queensland in the summer of 1982–83, officers attached to the Townsville and Cairns District Offices participated in mosquito surveys throughout both districts.

An active campaign to eliminate breeding sites has been undertaken by North Queensland Local Authorities, and in respect of Crown property, Departmental officers have taken action to have potential breeding sites eliminated.

Departmental officers have visited rainwater tank manufacturers throughout the State and have advised on the requirements of the Regulations and have sought their co-operation in this regard.

Negotiations have been held with suppliers of mesh screening, both locally and interstate, concerning the requirements of the Regulations.

Departmental officers and Local Authority officers investigated a reported case of Dengue Fever at Kingaroy in May, 1983. Despite an extensive investigation, the vector mosquito was not located.

Positive identification of *Aedes aegypti* was made at Childers during the year, but this mosquito was not found anywhere else in the surrounding district.

(c) Malaria

Staff attached to the Townsville and Cairns District offices participated in the Malarial Sprayround of the Torres Strait Islands in November, 1982. Following the notification of a suspected case of Malaria at Darnley Island in June, 1983, focal spraying of that Island was carried out.

(d) Primary Amoebic Meningoencephalitis

Staff attached to the Townsville District office were involved in the investigation of a case of Primary Amoebic Meningoenchephalitis. The causal organism was isolated from a hose attached to a tap at the home of the victim and it is assumed that it entered the child's nose while he was playing in a small wading pool which had been filled with water drawn through the hose.

As a result of the investigation, action has been taken to improve the treatment of the water supply.

WATER SUPPLIES

The Health Department provides a service to Local Authorities in respect of the examination and analysis of water from public water supplies, and the evaluation of the results obtained. This service is extended to State and Commonwealth Departments and to Companies involved in mining development and oil exploration.

The number of water samples examined by the State Health Laboratories and Commonwealth Health Laboratories are set out in the tables hereunder. These figures do not include samples obtained in connection with Cholera surveillance.

WATER SAMPLES EXAMINED BY THE STATE HEALTH LABORATORIES

——	Total	Failed Criteria	
Bacteriological—			%
Treated Public Water Supplies	8 261	343	(4.15)
Swimming Pools	977	65	(6.65)
Water Slides	160	19	(11.8)
Spas	18	2	(11.1)
Raw Water (Untreated) ..	1 964		
Melioidosis	89	0	0
Salmonella	10	10	(100.0)
Primary Amoebic		0	0
Meningoencephalitis* ..	6	0	0
Brisbane District Office ..	22	0	0
Total	11 507	439	
Chemical—			
General Chemical Analysis	1 843	382	(20.7)
For Trace Metal Content ..	204	14	(6.8)
For Pesticide Content ..	237	13	(5.4)
For Fluoride Content ..	601	48	(7.9)
For Miscellaneous Levels ..	8	1	(12.5)
Brisbane District Office—			
Chemical	18	3	(16.6)
Trace Metals	4	1	(25.0)
Pesticides	2	0	0
Miscellaneous	6	0	0
Total	2 923	462	
GRAND TOTAL ..	14 430 samples		

* *Naegleria fowleri* grown from 2 samples of water.

WATER SAMPLES EXAMINED BY COMMONWEALTH AND LOCAL LABORATORIES

——	Total	Failed Criteria	
Bacteriological—			%
Treated Water Supplies ..	4 313	242	(5.6)
Swimming Pools	352	14	(3.9)
Water Slides	75	7	(9.3)
Sea	10	5	(50.0)
Raw Water (untreated) ..	799	0	0
Salmonella	2	1	(50.0)
Giardia	7	0	0
Total	5 558	269	
Chemical—			
General Chemical Analysis	180	16	(8.8)
For Trace Metals	..	..	
Total	180	16	
GRAND TOTAL ..	5 738 samples		

A few Local Authorities appear reluctant to provide adequate treatment for water supplies under their control. Where this occurs, the Local Authorities concerned are constantly encouraged to upgrade water treatment to an acceptable standard.

In the Townsville and Bundaberg Districts, water sampling programmes are being developed in areas under the control of National Parks and Wildlife Services.

SANITATION SURVEYS

Sanitation surveys have been carried out by Departmental officers in most Local Authority areas in the State during the year. These surveys cover the collection, removal and disposal of nightsoil and refuse, disposal of waste water, Plague prevention, fly and mosquito infestation, water supplies, barbers shops, swimming pools and picnic areas, and are designed to evaluate the standard of environmental sanitation in any given Local Authority area.

Generally, conditions have been found to be satisfactory, but inadequate control of refuse tips in some areas is still giving rise to problems. A small number of Local Authorities appear to be reluctant to apply for the Director-General's approval to conduct refuse tips.

During the year, a complete survey of Fraser Island was carried out by Bundaberg District Office staff. The survey revealed that Fraser Island presents special problems in so far as sanitation is concerned.

The island is comparatively large, somewhat isolated, has few amenities and is extremely popular. There is little freehold land on the island and Local Authorities are reluctant to spend ratepayers' money to provide facilities for tourists without financial return.

Refuse tip sites which are acceptable to all Government Departments concerned are difficult to find, and the control of these tips is very expensive.

Camping on the foreshores on the eastern side of the island is very popular at certain times of the year, and it is evident that large numbers of people camp in areas where there are no facilities whatsoever. The disposal of nightsoil from these camps is seen as a potential threat to the health of the people who frequent the area.

It is felt that in the future, more and more people will visit the island generating increased problems.

ABORIGINAL HEALTH

Departmental officers carried out routine inspections of Aboriginal communities during the year under review. Where necessary, recommendations aimed at improving the standard of basic sanitation were made and forwarded to the appropriate authority.

Two special investigations were carried out at Lockhart River Community relating to outbreaks of Hepatitis and suspected Gastroenteritis. At the request of the Department of Aboriginal and Islanders Advancement, one special inspection was made at Doomadgee.

PAINTS

Upon notification of a case of lead poisoning or suspected lead poisoning, investigations are carried out by Departmental officers. These investigations always include the removal of paint scrapings from the patient's dwelling. Where the paint is found to contain lead, action is taken to have the offending paint removed.

In one case investigated during the year, it was found that the patients' (two young children) lead levels continued to increase after the paint had been removed. Samples of soil and of ceiling dust subsequently removed from the premises contained much higher than normal levels of lead. Since this incident, guidelines for the safe removal of paint are issued with every request to remove leaded paint.

At present, a survey is being undertaken to establish if lead is present in house paints on the retail market.

During the year, 567 samples of paint and paint scrapings were submitted for analysis. Of these, 401 samples passed, 128 samples failed and the results of 38 have not yet been received.

TOYS AND OTHER ARTICLES

The increasing number of cheap toys imported from South East Asia which are appearing on the market has necessitated constant surveillance. Toys are examined for the presence of heavy metals and "hidden" hazards.

Where toys fail to meet the standard, action is taken to have them removed from sale.

A variety of other articles were submitted for examination and, where necessary, action was taken to remove offending items from sale.

Details of samples examined are shown in the table below:—

Type of Sample	Number submitted	Pass	Fail	Results not received to date
Toys	356	223	102	31
Modelling Clay	8	4	4	..
Erasers	157	154	3	..
Cooking Utensils	27	18	3	6
Crockery/Pottery	48	47	1	..
Soil Samples	150	134	16	..
Water Filters	8	..	..	8
Filter Cartridges	8	..	..	8
Miscellaneous (Incl. boots, babies accessories, etc.)	30	20	5	5
Total	792	600	134	58

RADIOACTIVE SAND

Officers of the Environmental Sanitation Section have been involved in the checking of certain premises for radioactive sand. Up to 30th June, 1983, 495 premises had been checked, of which 41 gave positive readings, requiring further analysis by the Division of Health and Medical Physics for further action.

COMMITTEES

The Chief Inspector is a member of the Joint Committee constituted under the Sewerage and Water Supply Act and is the Departmental representative on a terminating committee investigating long-term caravan residency and caravan parks. The Senior Inspector is a member of the Plumbers and Drainers Licensing and Examination Board.

OCCUPATIONAL HEALTH UNIT

The Occupational Health Unit, formerly the Division of Industrial Medicine, is now part of the Division of Environmental and Occupational Health. The Unit is responsible for both preventive programmes in occupational health and for the investigation of occupational health problems occurring within the work force. The Unit relies heavily on the services of the Government Chemical Laboratory for scientific support in the assessment and control of occupational hazards within the work environment, and appreciation is expressed for the continual co-operation, without which the Unit could not properly function.

Support is also received from the Chest Clinic for X-ray surveys within industry and from the Laboratory of Microbiology and Pathology for microbiological, haematological and biochemical testing.

ROUTINE MONITORING OF HAZARDOUS INDUSTRIES

Lead remains a major problem in industry, and no relaxation of monitoring of this industry can be entertained. Depending on the degree of hazard, visits are made 3–6-monthly and this year 116 were undertaken, covering 550 employees. In addition, several premises were extensively tested for lead levels in the air, where there was shown to be problems from results of biological monitoring of employees.

Lead industries covered include battery factories, scrap metal yards, foundry operations and plastics factories.

Pesticide packers and users are another group in which routine tests are performed on a 3, 6 or 12-monthly basis, again depending on the degree of hazard. Twenty-two (22) visits were made covering 250 employees.

During the year, a decision was made to commence a routine monitoring operation of timber treatment plant employees using copper-chrome-arsenate treatments. Arsenic levels in urine are used as a measure of exposure. Up to the end of the financial year, plants in North Queensland had been completed and some in the south-east of the State. The remainder will be covered in the early part of the 1983–84 financial year. Arsenic is monitored because it is a carcinogen for skin and may also be hazardous to lung tissue. Some treatment plants also use other timber preservatives including chlorinated pesticides such as Aldrin and Pentachlorphenol along with the better known creosote treatment. An expansion of this monitoring service may be undertaken after results of the first round are assessed.

OCCUPATIONAL HEALTH INVESTIGATIONS

A wide variety of investigations were undertaken following reports of occupational health problems in industrial and commercial operations.

A remote North Western Queensland copper mine which has since closed for economic reasons was visited by Dr Rathus shortly before his retirement at the request of unions and management, following the appearance of skin irritation in a number of workers.

A major screening survey of fruit growers was conducted in the Stanthorpe district and around 200 growers attended for blood tests for pesticide levels. Very few problems were noted, but higher than expected levels of DDT were common which suggested a need for improved safety in handling pesticides generally, since many are much more acutely toxic than DDT. However, the latter persists in the body, and becomes a useful indicator of pesticide exposure.

NOISE

Fourteen noise surveys were carried out within factories and offices. While the former have always had noise problems, complaints from office situations are rising due to the introduction of computers and line printing machines. While the majority of these are not found to be at a damaging level to hearing, the low background noise level in offices accentuates the noise produced and it becomes disturbing to staff. Enclosures for such office equipment are becoming common, which significantly reduce the noise problem.

Audiometric testing on 186 employees, exposed to excessive noise, was carried out as part of the major noise surveys conducted. Noise surveys and audiometric tests are used as the initial steps in the development of hearing conservation programmes in industry. The development of such programmes is a major preventive effort by the Unit. These are usually accompanied by film presentations and group discussions with employees and management to encourage hearing protection measures.

LEAD POISONING

A case of lead poisoning in a country radiator repair shop was investigated and the cause found to be the combination of lead fume from soldering operations, using an oxy-welding torch and the use of a buffing wheel without extraction ventilation. Advice was given for improvements in ventilation, handling techniques and protective clothing.

MERCURY POISONING

The Unit, with scientists from the Government Chemical Laboratory, investigated a private dwelling where two children had developed symptoms of mercury poisoning. Unacceptably high levels of mercury vapour were found where a quantity of the metal had been spilled on a carpet. Retesting following removal of the carpet revealed acceptable mercury levels. This is a salient reminder of the hazards associated with this metal which is attractive to children because of its unusual physical properties.

FORMALDEHYDE

This compound has been shown to be carcinogenic in laboratory rats exposed to high concentrations for prolonged periods. As a result, the suitability of urea formaldehyde foam for home insulation has been brought into question and many concerned members of the public have requested tests to be undertaken in homes in which this insulation has been installed. Twenty-nine (29) homes were tested and two commercial premises. Levels were generally below the upper acceptable levels for the home situation, but in almost every case there was marked physical deterioration of installed foam which reinforces the belief that this is not a suitable product for home insulation. High levels of formaldehyde were measured in the two commercial premises, the source of one being urea formaldehyde foam and the other new plywood wallboard which presumably used urea formaldehyde glue. The unstable nature of this compound under certain conditions has become apparent and reflects the need for care in choice of situation where it can be used successfully.

ASBESTOS

There has been a marked increase in work associated with this substance this year, largely as a result of union concern. Requests have varied from those seeking identification of lagging and insulation material as asbestos or otherwise, to those desiring major surveys of asbestos in air in the work place. Two major surveys requiring a multitude of tests in each place were organized, one in a major metropolitan hospital, the other in a large gasket manufacturer. Such requests, along with those for information on asbestos, have developed to the extent that around 25 per cent of the time available is taken up with work pertaining to this substance.

OTHER CHEMICAL PROBLEMS

Many employees are exposed to a wide range of solvents used in industry, and these can cause health problems if the levels in the air of the workplace are higher than acceptable. Several major surveys were conducted and several hundred enquiries for information answered.

P.C.B.'s

Polychlorinated biphenyls (P.C.B.'s) continue to cause a problem for any industry which has had these in use and now wants to rid itself of the problem. These compounds are extremely persistent in the environment and in human body systems and must be handled with care. Disposal is most satisfactorily dealt with using high temperature incineration. The Occupational Health Unit was involved in the loading of more than 200 tonnes on to the incinerator ship "M.V. Vulcanus" over the Christmas–New Year period.

ERGONOMICS

This is the science of fitting the task to the person and involves the proper design of equipment in all work situations. The installation of visual display terminals in offices has highlighted the problems of poor design of workstations, and the Unit has inspected several areas having problems related to this, such as repetition strain injuries of arms, backs, necks and shoulders. Tenosynovitis, a condition where tendons and tendon sheaths become inflamed, is the most commonly observed problem and is often related to poor equipment and furniture design and the requirement for excessive speed of data input. Investigation of one Government Department resulted from a case of this nature.

LECTURES, VISITS, ETC.

Staff of the Unit gave approximately 20 lectures on a wide variety of topics throughout the year including noise, pesticides, the hazards of electroplating, ergonomics, melioidosis, dust diseases, asbestos and so on.

In addition, a number of medical student groups were taken on factory visits by arrangement with the University of Queensland.

The Assistant Director attended the World Congress in Occupational Safety and Health held in Ottawa from 8th–13th May, 1983, and had the opportunity of visiting other centres in Hamilton, Ontario, and Vancouver whilst in Canada. The information thus obtained has been most useful in planning for future developments in Occupational Health in Queensland.

SEXUALLY TRANSMISSABLE DISEASES

In March, 1983, the Venereal Disease division of the Health Act was amended by the elimination of sections outmoded by modern treatment whilst giving the Director-General greater powers to control these diseases. At the same time, *Herpes Genitalis* was made a notifiable disease.

During this financial year, the Male and Female Clinics were combined, providing the most modern facilities for patient investigation and anonymity and including the laboratory service.

Insofar as figures were available at the time of this report, the incidence of notifiable disease in Queensland for 1982–83 was 2 622. This figure represents a rate of 108.36 per 100 000 which, while an increase on the 1981–82 figure of 89.3 per 100 000, could be somewhat explained by the inclusion of Herpes as a notifiable disease and the increased attendance at the clinic. The incidence of Syphilis, Gonorrhoea and Herpes are 17.8, 57.2 and 16.4 per 100 000 respectively.

This total of 2 622 reported cases is greater by 562 than the number for 1981–82, and the increase is noted in both sexes—there being 311 more male cases and 251 more females with notifiable infections. Herpes notifications account for 398 of this 562 increase.

The female/male ratio (ideally 1:1) was 1:1.91 for overall cases, this showing an improvement on the 1981–82 figure which was 1:2.18. This ratio is 1:1 for syphilitic notifications but is 1:2.64 for gonococcal infections.

The 15- to 24-year-old age group is again the most affected age group, being responsible for 52.16 per cent of all notifications.

The following two tables provide the details to substantiate the above statements:—

NOTIFIABLE VENEREAL DISEASES 1965–76 TO 1982–83

Year	Notifications				Age Distribution—Per Cent			
	Males	Females	Total	Rate/100 000	0–14	15–19	20–24	25+
1965–66	1 235	417	1 652	101.2	0.7	23.0	34.4	41.9
1966–67	1 221	445	1 666	100.3	1.2	26.1	35.2	37.5
1967–68	1 163	491	1 654	97.2	0.8	23.9	34.5	40.8
1968–69	1 422	611	2 033	116.1	1.1	23.8	35.7	39.4
1969–70	1 403	547	1 950	110.2	1.2	25.3	33.1	40.4
1970–71	1 441	439	1 880	103.3	0.9	26.5	32.8	39.8
1971–72	1 575	545	2 120	116.0	0.9	23.8	35.4	39.9
1972–73	1 806	719	2 525	138.2	1.9	27.2	33.9	36.9
1973–74	1 657	898	2 555	131.3	2.0	25.0	30.1	42.8
1974–75	1 705	872	2 577	128.7	1.1	28.9	32.5	37.5
1975–76	1 391	688	2 079	103.18	1.9	25.8	34.5	37.6
1976–77	1 457	731	2 188	103.11	2.5	24.6	30.2	42.7
1977–78	1 935	1 341	3 276	153.31	2.65	23.23	30.65	44.46
1978–79	1 912	1 461	3 373	154.7	3.08	24.49	28.11	44.32
1979–80	1 855	1 231	3 086	139.35	1.59	23.2	30.14	45.07
1980–81	1 638	943	2 581	114.82	2.25	21.31	30.41	46.03
1981–82	1 413	647	2 060	89.3	1.43	21.66	31.93	44.96
1982–83	1 724	898	2 622	108.36	2.40	20.59	31.57	45.73

SHOWING AGE GROUPS OF NOTIFIED CASES OF SYPHILIS, GONORRHOEA AND HERPES

Syphilis				Gonorrhoea			Herpes			Others		
Age Group	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Under 1	..	1	1	2	1	3	..	..	..	..	..	..
1–4	..	2	2	..	2	2	..	..	..	..	3	3
5–9	..	4	4	2	..	2	..	..	..	..	..	..
10–14	6	9	15	8	7	15	..	..	..	2	6	8
15–19	38	57	95	181	122	303	15	34	49	36	57	93
20–24	46	56	102	317	131	449	66	69	135	99	43	142
25–29	32	34	66	194	61	255	58	34	92	69	19	88
30–34	28	8	36	142	25	167	47	12	59	24	5	29
35–39	16	14	30	57	14	71	26	8	34	22	5	27
40–44	17	3	20	30	7	37	12	6	18	8	1	9
45–49	7	3	10	32	1	33	3	2	5	2	..	2
50–54	12	1	13	14	1	15	2	1	3	2	1	3
55–59	2	3	5	8	2	10	1	1	2	..	..	..
60–64	1	7	8	5	..	5	1	..	1	2	..	2
65 and over	11	5	16	6	1	7	..	..	..	..	..	..
Not stated	6	4	10	7	4	11	..	..	..	..	..	..
Total	222	211	433	1 005	380	1 385	231	167	398	266	140	406

PRIMARY SYPHILIS

The reported incidence of primary syphilis is of greater clinical significance than the total cases of the disease—it indicating the degree of activity of the disease. During 1982–83, there were 60 cases of primary syphilis reported—this figure being 110 less than in the previous year and representing 13.8 per cent of the total number of syphilis patients. This figure compares favourably with 1981–82 when 37.61 per cent of syphilitic cases were reported as primary syphilis. Of these 60 cases, only six were from Brisbane.

The following table provides a breakdown of these cases by age and sex:—

Age Group	Male	Female	Totals
1–4	..	..	..
5–9	..	..	..
10–14	2	4	6
15–19	9	12	21
20–24	7	6	13
25–29	3	5	8
30–34	5	..	5
35–39	1	..	1
40–44	2	..	2
45–49	..	..	..
50–54	2	..	2
54–59	..	..	..
60–64	..	..	..
65 and over	1	..	1
Not stated	1	..	1
Total	33	27	60

BRISBANE CLINICS

Male attendance for new diseases at the clinic rose from 4 669 in 1981–82 to 5 325 in this present year, and the notifiable diseases increased from 626 to 975. However, this increase of 349 included 231 cases of Herpes, a disease which was not previously notifiable.

The repositioning of the female clinic is reflected in an increase in new cases, i.e. from 1 572 to 2 763. The number of notifiable cases increased from 179 to 435. However, this increase of 256 includes 165 cases of Herpes. Of the males attending, 18.3 per cent had a notifiable disease compared to 15.74 per cent of female attenders.

N.S.U. accounted for 1 672 of male attendances—this figure being 31.45 per cent of new cases compared with gonorrhoea being responsible for 8.1 per cent of new cases. No disease was found in 30 per cent of those presenting.

Of the females, 61 per cent had no detectable disease, with gonorrhoea cases being only 5.7 per cent of new cases.

Herpes was present in 5.3 per cent of male patients and 5.97 per cent of female attenders.

HOMOSEXUALS

The total number of male homosexuals who attended the clinic was 503, or 113 more than in 1981–82. Of this number, 115 had a notifiable disease, this number representing 22.86 per cent of those attending. This percentage indicates a greater risk of infection than in the general male attendance where the percentage of infection by notifiable disease is 18.3 and is a decrease on the percentage infection of the previous year (40.76 per cent).

Gonorrhoea (102 persons) was responsible for 88.69 per cent of those infected with syphilis occurring in three cases. A breakdown of the incidence of these figures by diseases and sex follows, and from this it is seen that the greatest incidence is in the 20-29-year-old decade—this group representing 46.9 per cent of those notified.

Age	Gonorrhoea	Syphilis	Herpes	Other Forms	Total
15–19	12	1	1	..	14
20–24	22	1	1	2	26
25–29	26	..	1	1	28
30–34	21	..	1	3	25
35–39	11	1	..	..	12
40–44	5	..	..	..	5
45–49	5	..	..	..	5
Total ..	102	3	4	6	115

MARRIED STATUS AND SEX OF PATIENTS

The following table shows that 10.36 per cent of sexually transmitted notifiable diseases occurred in married persons compared with 14.07 in 1981–82.

Marital Status	Male	Female	Total
Single	1 214	564	1 778
Married	179	98	277
Separated	79	57	136
Widowed	13	12	25
Divorced	32	26	58
Not Stated	207	141	348
Total	1 724	898	2 622

METROPOLITAN/COUNTRY REPORTS

Metropolitan reported cases amounted to 1 537 (58.6 per cent) of the cases reported. This proportion is much greater than the figure of 40.60 per cent of last year. This number is 577 more than 1981–82, but herpes is responsible for 385 of this increase. Of the cases reported in the metropolitan area, gonorrhoea was responsible for 34.67 per cent, syphilis for 5.33 per cent, herpes for 25.04 per cent and other forms for 22.12 per cent. In extrametropolitan areas these figures are 60.36 per cent, 32.35 per cent, 1.19 per cent and 6.08 per cent respectively.

These figures are a summary of the following table:—

—	Metropolitan		Outside Centres		Whole State		
	Males	Females	Males	Females	Males	Females	Total
Gonorrhoea—							
Unspecified	4	13	129	40	133	53	186
Acute	525	113	340	110	863	222	1 085
Sub-acute	4	71	3	29	7	100	107
Chronic	..	..	..	2	..	..	..
Opthalmia	..	..	..	..	..	..	..
Vulvo-Vaginitis	..	..	..	2	..	2	2
Total	533	197	472	183	1 003	377	1 380
Syphilis—							
Unspecified	4	13	6	16	10	29	39
Primary	2	4	31	23	33	27	60
Secondary	13	9	40	36	53	45	98
Tertiary	2	..	..	..	2	..	2
Latent	23	10	99	98	122	108	130
Neuro	2	..	..	1	2	1	3
Heredo (Congenital)	..	..	..	1	..	1	1
Total	46	36	176	175	222	211	433
Herpes	229	156	2	11	231	167	398
Other Forms—							
Soft Sore	3	..	..	..	3	..	3
Venereal Warts	230	107	3	2	233	109	342
Ulcerative Granuloma	..	..	30	31	30	31	61
Total	233	107	33	33	266	140	406
Grand Total	1 041	496	683	402	1 722	895	2 617

PRIVATE PRACTITIONER REPORTING

Private practitioners reported 327 cases of notifiable diseases in 1982–83 or 12.47 per cent of the total reported. This number was 56 more than in the previous year but was much less on a percentage basis.

Hospitals reported 34.05 per cent of those notified.

Further information is provided in this table.

——	Males	Females	Total
Private Doctors—			
Brisbane	45	44	89
Outside Centres ..	175	63	238
Total	220	107	327
Clinics—			
Brisbane	946	417	1 363
Outside Centres ..	3	6	9
Total	949	423	1 372
Hospitals—			
Brisbane	50	35	85
Outside Centres ..	505	333	835
Total	555	368	893
Total All Sources ..	1 724	898	2 622

CONTACT TRACING

Although most metropolitan patients notify their contacts of the possibility of infection, some contacts are followed by this Department. In the metropolitan area, an attempt was made to locate 79 persons of whom 58 subsequently attended the clinic—a success rate of 73.41 per cent. Two patients failed to attend after contact and 19 were not traced. The success rate of those contacted was thus 96.66 per cent.

Of seven extra-metropolitan contacts, four were successfully treated and three were not located. The only interstate contact was located.

B LACTAMASE N. GONORRHOEA

The report of the Division of Laboratory Services reports that there were 45 cases of *B. Lactamase* producing *N. Gonorrhoea* in this financial year of whom 28 and a S.E. Asian contact, seven were locally infected, with the source unknown in 10 cases.

The male clinic treated 20 of these cases of whom two were infected locally, and the female clinic attended to four cases of whom three resulted from local contact.

TUBERCULOSIS AND CHEST DISEASES SERVICES

Acting Medical Officer in Charge, Brisbane: A. M. PATEL, M.B., B.S., F.R.C.P.(E), D.E.C.T., F.R.A.C.P.

Medical Officers:
Dr J. PATTEN, M.B., B.S., M.R.C.P. (Physician)
Dr R. JACKSON, M.B., B.S.
Dr T. KONSTANTINOS, M.B., B.S.

Senior Nursing Sister in Charge: JEAN PARKER

Clerk Administration in Charge: KEN TIGHE

Officers in Charge of Subsections:
Radiography and MMR: Mr M. LEWIS
Statistics and Computer Register: Mr T. BLIGHT
Social Work: Mrs L. REDMAYNE (part-time)
Records: Mr R. LINNEWEBER

Nursing sisters, supportive staff and secretarial personnel all together make up 56 staff members.

Chest physicians in various thoracic annexes at Base Hospitals function as regional directors in control of Tuberculosis activities in their area (Toowoomba, Rockhampton, Townsville and Cairns). This historical arrangement has now resulted in an efficient regional autonomous Tuberculosis control set-up, but not without continuous mutual consultations with the centre in Brisbane. Brisbane Chest Clinic and the thoracic annexes have various country chest clinics which function adequately, not only in diagnosis and management of Tuberculosis, but also in offering consultative services in non-Tuberculosis respiratory diseases.

MAIN NOTEWORTHY EVENTS

1. Dr E. Abrahams, the previous Director of the Division of Tuberculosis, retired from service on 2nd July, 1982. From its creation in 1949, the Division was organized and steered successfully by him over the last 33 meritorious years.

2. Initiation of the Coal Miners' Chest X-ray Survey throughout the Queensland coal mines. (Joint Coal Board/ Department of Health venture).

3. Further Characterization of active Tuberculosis case finding.

4. The Department of Health has appointed an *ad hoc* Tuberculosis committee to advise on matters of forward policy on Tuberculosis.

5. The Australian Tuberculosis Clinical Conference was held in Perth, W.A., in September, 1982. Queensland had participated through the Acting Director and a Medical Officer from the Chest Clinic, who presented a clinical paper. In addition, the Thoracic Physician at Rockhampton presented a paper on Bovine Tuberculosis in Queensland. Dr E. Abrahams was the invited guest to deliver the second Wunderley Oration, and he spoke on BCG vaccination.

GENERAL

Brisbane Chest Clinic continues its varied activities as before. Medical administrative functions are concerned with State-wide direction of Tuberculosis control and supervision of its implementation, together with consultative Chest Clinic activities. The latter are organized and conducted on a similar basis to major hospital outpatient consultative clinics.

TABLE I
CHEST CLINIC BRISBANE—TOTAL " CLINICAL " WORKLOAD
(Nursing Workload Excluded)

Period	Patient Consultations and Clinical Reviews		Chest X-rays Read/Reviewed		Total		
	Brisbane Chest Clinic	" Brisbane Area " Country Chest Clinics	Micro Films	" XRO " Large Standard	Patient's Chest X-rays	Reviews Patient/X-ray	All "Actions"
	A	B	C	D	E	F	G
1982 (1–1–82 to 31–12–82)	10 679	2 821	19 865	1 767	9 290 . .	35 132 . .	44 422
1983 (½ year to 30–6–83)	4 317	1 086	9 403	. . *	4 836 . .	14 806 . .	19 642

NOTE * Patients in this Group (XRO), previously annually chest X-rayed at clinics are now merged into the Higher risk (Computer) Register.

This table (Table I) shows doctors' workload during 1982, and the first six months of 1983. There is no significant change in each doctor handling about 55 tasks each working day, including 43 distinct unrelated functions pertaining to each patient.

In terms of responsible and exacting clinical functions, each doctor may average up to 30 patients' full review at a daily clinic.

TUBERCULOSIS—NOTIFICATIONS AND TRENDS

All Tuberculosis notifications and their subgroups are reported on a calendar year basis to enhance uniformity with other States, and to avoid duplicate work. Data is presented somewhat differently to reflect a changing Tuberculosis epidemiological scene.

Table II shows the total mycobacterial disease spectrum of newly-reported cases. A total of 188 for the period includes 49 Atypical Tuberculosis cases, as well as Tuberculosis cases amongst a small, but continuing, number of South-East Asians who arrive already on treatment for Tuberculosis.

These "totals", therefore, possibly mask a smaller number of locally diagnosed new cases of Tuberculosis with a degree of underdetection, consequent upon the closure of MMR surveys, and other changes in diagnosis and management of Tuberculosis.

TABLE II

ALL TUBERCULOSIS NOTIFICATIONS FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1982, PRESENTING RADIOLOGICAL EXTENT OF DISEASE AND BACTERIOLOGICAL STATUS IN AGE GROUPS

(Relapsed and " Transfer-in " Cases Excluded)

Age Groups	Males						Females						Persons						Total Cases
	Pulmonary Typical			Pulm. Atyp.	Non-Pulmonary		Pulmonary Typical			Pulm. Atyp.	Non-Pulmonary		Pulmonary Typical			Pulm. Atyp.	Non-Pulmonary		
	Min.	Mod.	Adv.		Typ.	Atyp.	Min.	Mod.	Adv.		Typ.	Atyp.	Min.	Mod.	Adv.		Typ.	Atyp.	
0– 4 ..			1 SC+		1 C+	3	2 Neg				1 C+	1	2		1		2	4	9
5– 9 ..	2 Neg											1	2					1	3
10–14 ..																			
15–19 ..	2 Neg						1 Neg			1			3			1			4
20–24 ..	1 Neg						4 Neg	1 SC+	1 SC+	1	3 C+		5	1	1	1	3		11
25–29 ..	1 C+ 4 Neg						1 C+ 2 Neg	1 SC+	1 SC+		2 Neg		8	1	1		2		12
30–34 ..	1 C+ 1 SC+ 1 Neg	2 SC+				1	1 C+	3 SC+			1 C+		4	5			1	1	11
35–39 ..	1 Neg	1 SC+		2		1	1 SC+ 1 C+ 1 Neg	1 Neg			2 C+		4	2		2	2	1	11
40–44 ..	1 C+ 1 SC+ 1 Neg	1 SC+	1 SC+		1 C+ 2 Neg	1	1 Neg						4	1	1		3	1	10
45–49 ..	1 C+ 1 SC+ 2 Neg	1 SC+		1			1 SC+ 3 Neg			1			8	1		2			11
50–54 ..	2 C+ 2 Neg	1 C+ 1 SC+	1 SC+	2	1 C+		5 SC+ 1 Neg				1 C+		10	2	1	2	2		17
55–59 ..	1 SC+ 1 Neg	4 SC+ 1 Neg		6		1	1 Neg	2 C+		1			3	7		7		1	18
60–64 ..	1 SC+ 2 Neg	3 SC+ 1 C+	2 SC+	6	2 C+		2 SC+	1 C+					5	5	2	6	2		20
65–69 ..	1 Neg	2 SC+	1 SC+	1					1 SC+	1	1 Neg		1	2	2	2	1		8
70–74 ..	1 SC+ 2 C+	1 SC+ 1 Neg		1			1 SC+			5	1 C+		4	2		6	1		13
75+ ..	3 SC+	6 SC+	1 C+ 4 SC+	7		2	1 Neg	3 SC+		1	1 C+		4	9	5	8	1	2	29
Not Stated												1						1	1
Totals	37	26	11	26	7	9	30	12	3	11	13	3	67	38	14	37	20	12	188

Smear/Culture Positive = SC+
Culture Only Positive = C+
Negative (Both) = Neg.

Tables III and IIIA show only newly-reported "Typical Tuberculosis". Forty-five of a total of 138 notified cases (i.e. 32%) were bacteriologically negative, a stable trend.

Excluding the somewhat constant non-pulmonary Tuberculosis, 119 reported cases of pulmonary Tuberculosis included 97 (i.e. 78%) who were bacteriologically confirmed. The majority of these were amongst the moderate and advanced pulmonary Tuberculosis groups. Because bacteriologically positive cases constitute the infectious form of tuberculosis, this degree of reliance on bacteriology to make the diagnosis is desirable.

However, the vast majority of bacteriologically negative cases were amongst those with minimal disease, and included the South-East Asians. If this group thus reflects an "excess" of reported cases, there is a real possibility of a degree of underdiagnosis amongst the local population (see later).

TABLE III

ALL TUBERCULOSIS NOTIFICATIONS (TYPICAL ONLY) FOR THE CALENDAR YEAR ENDING DECEMBER, 1982, PRESENTING RADIOLOGICAL EXTENT OF DISEASE AND BACTERIOLOGICAL STATUS IN AGE GROUPS

(Relapsed and " Transfer-in " Cases Excluded)

Age Groups	Males				Females				Persons				Total Typical New Cases
	Pulmonary Typical			Non-Pulmonary	Pulmonary Typical			Non-Pulmonary	Pulmonary Typical			Non-Pulmonary	
	Min.	Mod.	Adv.	Typical	Min.	Mod.	Adv.	Typical	Min.	Mod.	Adv.	Typical	
0– 4			1 SC+	1 C+	2 Neg			1 C+	2		1	2	5
5– 9	2 Neg								2				2
10–14													
15–19	2 Neg				1 Neg				3				3
20–24	1 Neg				4 Neg	1 SC+	1 SC+	3 C+	5	1	1	3	10
25–29	1 C+ 4 Neg				1 C+ 2 Neg	1 SC+	1 SC+	2 Neg	8	1	1	2	12
30–34	1 C+ 1 SC+ 1 Neg	2 SC+			1 C+	3 SC+		1 C+	4	5		1	10
35–39	1 Neg	1 SC+			1 SC+ 1 C+ 1 Neg	1 Neg		2 C+	4	2		2	8
40–44	1 C+ 1 SC+ 1 Neg	1 SC+	1 SC+	1 C+ 2 Neg	1 Neg				4	1	1	3	9
45–49	1 C+ 1 SC+ 2 Neg	1 SC+			1 SC+ 3 Neg				8	1			9
50–54	2 C+ 2 Neg	1 C+ 1 SC+	1 SC+	1 C+	5 SC+ 1 Neg			1 C+	10	2	1	2	15
55–59	1 SC+ 1 Neg	4 SC+ 1 Neg			1 Neg	2 C+			3	7			10
64	1 SC+ 2 Neg	3 SC+ 1 C+	2 SC+	2 C+	2 SC+	1 C+			5	5	2	2	14
65–69	1 Neg	2 SC+	1 SC+				1 SC+	1 Neg	1	2	2	1	6
70–74	1 SC+ 2 C+	1 SC+ 1 Neg			1 SC+			1 C+	4	2		1	7
75+	3 SC+	6 SC+	1 C+ 4 SC+		1 Neg	3 SC+		1 C+	4	9	5	1	19
Not Stated ..													
Totals ..	37	26	11	7	30	12	3	13	67	38	14	20	139
Bact. Neg. ..	(20)	(2)	(0)	(2)	(17)	(1)	(0)	(3)	37	3	0	5	45
Bact. Pos. ..	(17)	(24)	(11)	(5)	(13)	(11)	(3)	(10)	30	35	14	15	94

Smear/Culture Positive = SC+
Culture Only Positive = C+
Negative (Both) = Neg.

TABLE IIIA

BREAKDOWN FIGURES OF MAIN GROUPS

1. *Typical Tuberculosis*
   A. Pulmonary Tuberculosis Bacteriologically (+) = 79
   B. Non-Pulmonary Tuberculosis Bacteriologically (+) .. .. = 15
   C. All Bacteriologically (+) Typical Tuberculosis = 94
   D. Pulmonary Tuberculosis Bacteriologically (—) = 40
   E. Non-Pulmonary Tuberculosis Bacteriologically (—) .. .. = 5
   F. "All" Bacteriologically (—) Typical Tuberculosis .. .. = 45
   G. All Pulmonary Tuberculosis (Typical) — (A + D) .. .. = 119
   H. All Non-Pulmonary Tuberculosis (Typical) — (B + E) .. .. = 20
   I. All "Typical" Tuberculosis .. .. .. = 139

2. *Atypical Tuberculosis*
   J. Pulmonary Tuberculosis .. .. .. = 37
   K. Non-Pulmonary Tuberculosis .. .. = 12
   L. Total "Atypical" Tuberculosis .. .. = 49

3. *All Notified Tuberculosis* = (I + L) = 188

Table IV shows comparative trends of these subgroups over the last four years, during which MMR surveys have been curtailed and South-East Asians have arrived. Unless underdetection of new cases of Tuberculosis locally is significant, the drop in total notifications (Column 1) cannot be accounted for merely because of lesser numbers of incoming South-East Asians.

While the closure of MMR probably reflects some underdiagnosis, other data would suggest probable underdiagnosis within the resident Australian population, particularly above the age of 45 years.

TABLE IV
COMPARISON OF TUBERCULOSIS NOTIFICATIONS—CALENDAR 1979–1982 ACCORDING TO "TYPE" AND BACTERIOLOGICAL STATUS

(Relapsed and Transfer-in Cases not Included)

—	Pulmonary					Non-Pulmonary				Typical		Atypical	Total Pulm. and Non-Pulm. All Cases
	Typical					Typical			Atypical				
	No. of Typical	Smear and Culture Positive	Culture Only Positive	Neg. and Not Tested	Atypical	No. of Typical	Bact. Pos.	Neg. and Not Tested	(Pos.)	Total Proven	Total Cases	All Cases	
1979	155	..	112	43	23	19	8	11	5	120	197	28	225
1980	219	..	125	94	15	26	14	12	10	139	245	25	270
1981	137	57	20	60	26	25	13	2	9	90	152	35	187
1982	119	62	19	38	37	19	16	3	12	97	139	49	88

TABLE V
ALL NOTIFIED TUBERCULOSIS (TYPICAL ONLY) FIVE-YEARLY COMPARISON

(Reactivated Cases Excluded)

Calendar Year	A " Typical " Pulmonary and Non-Pulmonary Tuberculosis	B Bacteriologically Proven	% Age B of A	C " Typical " Pulmonary Tuberculosis Alone	D Bacteriologically Proven Pulmonary Tuberculosis	E % Age D of C
1972	206	174	84.46%	185	159	85.94%
1977	183	138	75.41%	164	132	80.48%
1982	139	94	67.62%	119	79	66.38%

Table V shows five-yearly comparisons of reported new cases of "Typical" Tuberculosis. Progressive drop of total Tuberculosis notifications, and particularly that the pulmonary Tuberculosis, is an expected and desirable trend. However, the proportion of patients who are bacteriologically positive amongst the total diagnosed each year, usually remain stable (see Column E, 1972, 1977). Therefore, the drop seen in 1982 (66.38%) is surprising.

More than 80 per cent of Tuberculosis is diagnosed passively by vigilant doctors investigating symptomatic motivated patients, who are often bacteriologically positive. Absence of MMR has probably eliminated the "mop up" possibility of missed cases. However, it is also more than likely that a correctable degree of Tuberculosis underdiagnosis exists at the level of primary medical patient/doctor contact.

TABLE VI
COMPARISON OF PULMONARY TUBERCULOSIS NOTIFICATIONS IN THE PAST FOUR YEARS SHOWING EXTENT OF DISEASE BY CHEST CLINIC

New Cases, Typical Only

—	1979		1980		1981		1982	
	No.	%	No.	%	No.	%	No.	%
Minimal	115	67.25	141	66.20	82	63.08	64	55.17
Moderate	48	28.07	54	25.35	38	29.23	38	32.76
Advanced	8	4.68	18	8.45	10	7.69	14	12.07
Total Typical Pulmonary	171	100.00	213	100.00	130	100.00	116	100.00

	1979	1980	1981	1982
Add—				
Primary	3	4	3	3
P/Eff.	4	2	4	..
Non-Pulmonary	19	26	15	19
Total Typical Cases	197	245	152	139
Notified Atypicals	28	25	35	49
Cases Shown in Report	225	270	187	188

Table VI confirms that there is no dramatic change in the extent of disease at presentation with Tuberculosis, since "changes" after 1977–78. However, if the increase in the proportion of advanced cases in 1982 (12.07%) is not merely a random fluctuation, then it may reflect delayed diagnosis. The need for vigilance by doctors and close surveillance of these trends seems essential.

Rates per 100 000, particularly separated for different subgroups of the population, often reveal useful Tuberculosis epidemiological data.

Table VII shows, as expected, the burden of Tuberculosis is on the older population (57.9% above the age of 44, and a rate of 22:100,000 in the very old). These Tuberculosis notification rates will fall only slowly over the ensuing decades (old Tuberculosis, breakdown). However, underdiagnosis, missed diagnosis, increased deaths from other diseases due to Tuberculosis, etc., are likely results of current changes in awareness of Tuberculosis and modes of detection.

TABLE VII

ALL TUBERCULOSIS NOTIFICATIONS (TYPICAL ONLY) FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1982

(Relapsed or Transfer-In Cases Excluded)

Showing—Rate per 100 000 of age Groups and State of Disease (Actual Number of Cases in Brackets)

Age Group	Males				Females				Persons					Total Typical New Cases
	Pulmonary			Non-Pulm.	Pulmonary			Non-Pulm.	Pulmonary				Non-Pulm.	
	Min.	Mod.	Adv.	(Typ.)	Min.	Mod.	Adv.	(Typ.)	Min.	Mod.	Adv.	Total	(Typ.)	Cases
0– 4			(1) 1.047	(1) 1.047	(2) 2.215			(1) 1.107	(2) 1.076		(1) 0.538	(3) 1.614	(2) 1.076	5
5– 9	(2) 1.872								(2) 0.956			(2) 0.956		2
10–14														
15–19	(2) 1.893				(1) 0.968				(3) 1.436			(3) 1.436		3
20–24	(1) 0.938				(4) 3.944	(1) 0.986	(1) 0.986	(3) 2.958	(5) 2.403	(1) 0.481	(1) 0.481	(7) 3.365	(3) 1.442	10
25–29	(5) 5.102				(3) 3.234	(1) 1.078	(1) 1.078	(2) 2.156	(8) 4.193	(1) 0.524	(1) 0.524	(10) 5.241	(2) 1.048	12
30–34	(3) 3.134	(2) 2.089			(1) 1.086	(3) 3.257		(1) 1.086	(4) 2.129	(5) 2.662		(9) 4.791	(1) 0.532	10
35–39	(1) 1.266	(1) 1.266			(3) 3.966	(1) 1.322		(2) 2.644	(4) 2.587	(2) 1.293		(6) 3.880	(2) 1.293	8
40–44	(3) 4.571	(1) 1.524	(1) 1.524	(3) 4.571	(1) 1.627				(4) 3.147	(1) 0.787	(1) 0.787	(6) 4.721	(3) 2.360	9
45–49	(4) 7.062	(1) 1.765			(4) 7.476				(8) 7.263	(1) 0.908		(9) 8.171		9
50–54	(4) 6.888	(2) 3.444	(1) 1.722	(1) 1.722	(6) 10.672			(1) 1.779	(10) 8.749	(2) 1.750	(1) 0.875	(13) 11.374	(2) 1.750	15
55–59	(2) 3.586	(5) 8.965			(1) 1.825	(2) 3.649			(3) 2.713	(7) 6.330		(10) 9.043		10
60–64	(3) 6.435	(4) 8.579	(2) 4.290	(2) 4.290	(2) 3.986	(1) 1.993			(5) 5.166	(5) 5.166	(2) 2.066	(12) 12.398	(2) 2.066	14
65–69	(1) 2.507	(2) 5.014	(1) 2.507				(1) 2.284	(1) 2.284	(1) 1.195	(2) 2.390	(2) 2.390	(5) 5.975	(1) 1.195	6
70–74	(3) 10.589	(2) 7.060	(1) 3.530		(1) 2.951			(1) 2.951	(4) 6.429	(2) 3.214		(6) 9.643	(1) 1.607	7
75+	(3) 9.609	(6) 19.218	(5) 16.015		(1) 2.016	(3) 6.048		(1) 2.016	(4) 4.949	(9) 11.136	(5) 6.187	(18) 22.272	(1) 2.487	19
Not Stated ..														
Total	37	26	11	7	30	12	3	13	67	38	14	119	20	139

(Brisbane Chest Clinic)

Tables VIII and VIIIA show proportion Tuberculosis notifications in different age groups. Unexpected drop (if real) of Tuberculosis amongst individuals above the age of 45 in 1981–82 may suggest current under-detection of Tuberculosis in older individuals.

TABLE VIII

TABLE SHOWING PERCENTAGE OF ACTIVE TYPICAL TUBERCULOSIS (PULMONARY AND NON-PULMONARY) FOR CALENDAR YEAR 1982 IN EACH AGE GROUP

Age	Number of Cases	Rate Percentage
0–4	5	3.59
5–9	2	1.43
10–14	..	..
15–19	3	2.15
20–24	10	7.19
25–29	12	8.63
30–34	10	7.19
35–39	8	5.75
40–44	9	6.47
45–49	9	6.47
50–54	15	10.79
55–59	10	7.19
60–64	14	10.07
65–69	6	4.31
70–74	7	5.03
75 and over	19	13.66
	139	100.00

TABLE VIIIA

ALL TUBERCULOSIS NOTIFICATIONS (TYPICAL ONLY) FIVE-YEARLY COMPARISONS (REACTIVATED CASES EXCLUDED)

PROPORTIONATE TUBERCULOSIS YOUNG AND OLD

Full Year	A	B	Percentage B of A
	Total Cases	Total Cases in Ages Above 45 years	
1966–1967 ..	500	341	68.2%
1971–1972 ..	214	143	66.8%
1976–1977 ..	188	139	73.9%
1981–1982 ..	136	75	55.1%

Table IX shows reactivated Tuberculosis during the year.

TABLE IX
RE-ACTIVATED CASES OF TUBERCULOSIS FOR YEAR ENDED 31st DECEMBER, 1982

Showing Age, Sex and Stage of Disease

Age Group	Males				Females				Persons				Total Persons
	Min.	Mod. Adv.	Adv.	Non-Pulmonary	Min.	Mod. Adv.	Adv.	Non-Pulmonary	Min.	Mod. Adv.	Adv.	Non-Pulmonary	
0–4													
5–9													
10–14													
15–19													
20–24													
25–29													
30–34													
35–39			1 (1)								1 (1)		1 (1)
40–44													
45–49													
50–54													
55–59	1 (1)	1 (1)				1			1 (1)	2 (1)			3 (2)
60–64													
65–69		3 (1)			1 (1)				1 (1)	3 (1)			4 (2)
70–74		1	1		1	1	1		1	2	1		4
75 and over			2 (1)			1				1	2 (1)		3 (1)
N/S													
Total	1 (1)	5 (2)	4 (2)		2 (1)	3	1		3 (2)	8 (2)	4 (2)		15 (6)

NOTE.—For purposes of this form a " re-activated case of tuberculosis " is a patient who requires treatment for pulmonary tuberculosis after having been conventionally considered as " cured ". Quoting the Danish Index—" A patient is conventionally considered as " cured " if his pulmonary tuberculosis for three successive calendar years without treatment is proved to be abacillary by adequate bacteriological tests."

Table X is a bacteriological profile for the newly-diagnosed cases of Tuberculosis at five-yearly intervals. This progressive drop is expected, but the extent of the drop in bacteriologically positive new cases may not be correct. In 1980 and beyond, "carryover" cases have increased.

TABLE X
ISOLATIONS OF M. TUBERCULOSIS AND M. BOVIS FROM " NEW " PATIENTS

——	1967	1972	1977	1982	Total
Pulmonary—					
M. Tuberculosis	203	156	127	66	557
M. Bovis	0	3	5	3 1 africanum	12
Non-Pulmonary—					
M. Tuberculosis	8	14	6	6	34
M. Bovis	0	1	0	0	1
Total	216	174	138	76	604

Table XI shows that in absolute terms, the total activities around a diagnosed case of Tuberculosis would entail up to 20 per cent of effort, compared with that injected for the same purpose during peak activity period of 1963–66.

TABLE XI

NUMBER OF TUBERCULOSIS NOTIFICATIONS AND RATE IN QUEENSLAND (PER 100 000 MEAN POPULATION)

Year	Number of Notifications	Notification Rate
1949–1950	513	43.7
1950–1951	595	49.9
1951–1952	780	62.9
1952–1953	943	74.1
1953–1954	821	63.1
1954–1955	725	54.6
1955–1956	685	50.3
1956–1957	639	45.8
1957–1958	852	59.9
1958–1959	789	54.4
1959–1960	787	53.2
1960–1961	767	51.1
1961–1962	721	47.1
1962–1963	826	53.1
1963–1964	856	54.1
1964–1965	891	55.2
1965–1966	623	37.8
1966–1967	563	29.5
1967–1968	512	29.8
1968–1969	382	21.8
1969–1970	294	16.8
1970–1971	301	16.8
1971–1972	248	13.6
1972–1973	247	13.0
1973–1974	241	12.4
1974–1975	235	11.7
1975–1976	213	10.6
1976–1977	216	10.4
1977–1978	197	9.2
1978–1979	231	10.6
1979–1980	261	11.3
1980–1981	257	11.7
1981–1982	195	8.5
Jan.–Dec. 1982 ..	188	8.0

Tables XI and XII show a continuing downward trend of notified Tuberculosis, and a vastly greater fall in Tuberculosis deaths. The latter, however, cannot be ascertained accurately due to inconsistent death certifications mentioning Tuberculosis, and a low rate of autopsies. Time factor related to death is also relevant. Undiagnosed Tuberculosis deaths, as well as deaths predominantly due to Tuberculosis, would increase transmitted Tuberculosis to others.

TABLE XII

NUMBER OF DEATHS FROM TUBERCULOSIS AND DEATH RATE (PER 100 000 MEAN POPULATION) IN QUEENSLAND

Calendar Year	Deaths	Death Rate
1950	236	19.8
1951	226	18.4
1952	216	17.2
1953	162	12.6
1954	140	10.6
1955	137	10.2
1956	81	5.7
1957	92	6.6
1958	83	5.9
1959	78	5.4
1960	83	5.7
1961	72	4.7
1962	84	5.5
1963	80	5.1
1964	75	4.7
1965	42	2.6
1966	43	2.6
1967	58	3.4
1968	60	3.4
1969	51	2.9
1970	37	2.1
1971	29	1.6
1972	24	1.3
1973	12	0.6
1974	22	1.1
1975	27	1.3
1976	26	1.2
1977	19	0.9
1978	22	1.0
1979	12	0.5
1980	17	0.7
1981	13	0.6
1982	Not Available	

MIGRANTS

Migrants arriving from different countries suffer from Tuberculosis at varying rates. Table XIII shows the wide variations in rates, but those with few cases of Tuberculosis may not represent accurate rates. Nevertheless, many of the higher rates do reflect such rates in their countries of origin and even after settling down to a low rate, these tend to remain higher than the comparable Australian rates. Continuing need for surveillance of such migrants is of obvious importance if migrants could be located in ensuing years of their residence.

TABLE XIII

COMPARISON BETWEEN THE RATES PER HUNDRED THOUSAND POPULATION OF AUSTRALIAN BORN AND MIGRANTS FOR 139 CASES OF "TYPICAL" T.B. DISCOVERED IN QUEENSLAND DURING THE CALENDAR YEAR 1982

Country of Birth	Number of Cases Discovered 1982	Number in Australia Counted 1981 Census	Rate of T.B. per 100 000
Australians in Queensland	85	1 932,810	4.4
Africa	1	7 268	13.7
China	2	2 774	72
Fiji	1	1 366	73.2
Germany	2	12 767	15.7
Hong Kong	1	1 164	85.9
Hungary	1	1 899	52.7
Italy	1	17 956	5.6
Indo-Chinese	28	3 601	777.6
Malaysia	1	2 955	33.8
New Guinea	3	7 914	37.9
New Zealand	2	48 073	4.2
Pakistan	1	183	546.5
Philippines	5	1 404	356
Poland	1	4 183	23.9
United Kingdom ..	3	147 445	2.0
Switzerland	1	1 094	91.4
Total Typical Cases	139		

Not only the South-East Asians and the non-British migrants, but also the British migrants, particularly of the older age group, contribute more tuberculosis in proportionate terms compared with the Australians (Table XIV).

TABLE XIV

TUBERCULOSIS NOTIFICATIONS OF MIGRANTS FOR THE CALENDAR YEAR ENDING 31–12–82

(New Typical Cases Only)

Arrival in Australia	British	Non-British	Indo-Chinese
Within 1 Year	5	11	28
Within 5 Years ..	3	2	..
Over 5 Years	..	5	..
	8	18	28
Percentage of Total ..	14.82	33.33	51.85

Total number of migrants was 54 which = 38.85 per cent of notifications of 139.

South-East Asian Migrants

The number of South-East Asians coming to Queensland has nearly halved over five years. However, proportionate reduction in patients with Tuberculosis, and on treatment for Tuberculosis, is less marked. A number of individuals are on chemoprophylaxis, and surveillance of their treatment form a major and exacting aspect of the duties of the doctors and nurses of this Clinic.

TABLE XV

SOUTH-EAST ASIAN MIGRANTS

Year	No. of Arrivals Brisbane Chest Clinic	Under Treatment for Tuberculosis	Receiving INAH Chemoprophylaxis
1978–1979 ..	1 137	51	379
1979–1980 ..	1 116	58	433
1980–1981 ..	1 311	56	456
1981–1982 ..	944	33	305
Jan.–Dec., 1982	652	33	206

Table XVI shows the expected proportionate drop of all notified Tuberculosis each year, from 1979, amongst the Asian migrants. Notifications for Australian-born have proportionately increased, which is interesting, if real, and will be monitored in future.

TABLE XVI

TABLE SHOWING TUBERCULOSIS NOTIFICATIONS FOR THE PAST FOUR YEARS SHOWING COMPARISON OF MIGRANTS, AUSTRALIAN BORN AND INDIGENOUS AUSTRALIANS

New Cases Typical Only

—	1979		1980		1981		1982	
	No.	%	No.	%	No.	%	No.	%
Asian Refugees	62	31.47	56	22.86	47	30.92	28	17.98
Other Migrants	48	24.37	48	19.59	35	23.03	26	20.86
Australian Born	64	32.49	116	47.35	55	36.18	73	52.51
Indigenous Australians*	23	11.67	25	10.20	15	9.87	12	8.60
Total Typical Cases	197	100.00	245	100.00	152	100.00	139	100.00
Notified Atypicals	28		25		35		49	
Cases Shown in Report	225		270		187		188	

* Aborigines and Torres Strait Islanders.

INDIGENOUS AUSTRALIANS

Diagnosis amongst indigenous Australians continues to be less than one would expect. There have been no specific surveys recently, and past surveys have yielded very low cases of Tuberculosis. Moreover, attendances at these surveys have been low.

A number of alternative approaches to Tuberculosis case finding are being explored at local levels. The current rate of Tuberculosis notifications in this subpopulation is certainly low (24:100 000), and variable actions may be necessary at different places. Certainly, "one-time" surveys for active case finding may become necessary, but specific integrated approaches may be more relevant.

DIAGNOSIS AND CASE FINDING ACTIVITIES

Source of Notification

Table XVII shows that, as in the past years, more than half of all cases of Tuberculosis are diagnosed at the Brisbane Chest Clinic and at the Thoracic Annexes.

TABLE XVII

SOURCES OF NOTIFICATION OF TUBERCULOSIS

("Atypicals " Excluded)

COMPARISON OF PAST FOUR YEARS

—	1979	%		1980	%		1981	%		1982	%	
Mobile Surveys	20	10.15		12	4.90		3	1.97		7	5.07	
Direct	10	5.07		17	6.94		8	5.26		5	3.62	
Private Doctors—via Chest Clinic	8	4.06		4	1.63		3	1.97		13	9.42	
General Hospitals	45	22.85		47	19.18		21	13.82		30	21.74	
Chest Clinic (Brisbane)	89	45.18	55.33	115	46.94	65.31	83	54.61	75.66	53	38.41	52.18
Chest Clinic, Annexes	20	10.15		45	18.37		32	21.05		19	13.77	
Repat. Hospital	..	..		4	1.63		..	..		3	2.17	
Death Cert.	5	2.54		1	0.41		2	1.32		7	5.07	
Special Surveys	..	..		..	..		..	..		1	0.73	
Total New Typical Pulm. and Non-Pulm.	197	100.00		245	100.00		152	100.00		139	100.00	
If Atypicals Added	28			25			35			49		
Total Notifications in Reports	225			270			187			188		

Passive Case Finding

There is a need for the diagnosis of Tuberculosis to be considered by general practitioners and further systematic investigation undertaken where necessary. The majority of future cases of Tuberculosis will only be diagnosed during the first contact between doctor and patient; and hence the general practitioner will have to remain constantly vigilant and include relevant investigations for Tuberculosis during his systematic work-up of a patient.

Active Case Finding

Higher risk Tuberculosis register is now further particularized to enhance the cost-effective yield of Tuberculosis. Table XVIII shows a Tuberculosis rate of 42:100 000 amongst 16 471 higher risk individuals, but only at a rate of one case for every 2 000 X-rays. Yet, this is a high rate of Tuberculosis which is much lowered in yield by casual attendants who revealed no case of Tuberculosis.

TABLE XVIII

RESULTS OF SURVEY OF HIGHER RISK GROUP FOR THE CALENDAR YEAR 1982 OF PERSONS CHEST X-RAYED IN THE BRISBANE CHEST CLINIC AREA

Number Chest X-rayed	Number of Active Cases	Number of Active T.B. Cases per 1 000 X-rays	Inactive Cases	Carcinoma	Cardiac Abnormality	Other Diseases	Under Investigation	No Significant Abnormality	No Action I.S.Q.
Higher Risk Group (16 471)	7 +1 Atypical	0.49	145 (8:1 000)	8 (0.5:1 000)	141 (8:1 000)	58 (3:1 000)	156 (9:1 000)	406 (23:1 000)	152 (9:1 000)
Casual Attendance (1 005)	Nil	Nil			.				

It is felt that individuals with a normal chest X-ray, and only a tuberculin strong reaction, will have their last X-ray during the current survey. If again found to have no active Tuberculosis, they will not be reminded annually to have repeat X-rays, but left to their own discretion to attend. No doubt, a few of these individuals may continue to attend due to other overriding risk factors.

It is also hoped to concentrate active special case finding activities in specific areas (e.g. old people's homes, institutions, remote missions, etc.). These sequential surveys are being planned.

The object of Tuberculosis case finding is early diagnosis to enable prompt and efficient treatment. This offers a 100 per cent cure and promptly minimizes transmission of infection to others. Such infections, if they occur, may produce active Tuberculosis only several years hence.

TREATMENT AND DOMICILIARY VISITS

The nine-month duration, shorter treatment for tuberculosis using Rifampicin and INAH throughout supplemented with Streptomycin or Ethambutol initially, for two months, is the standard regimen. There are as yet no other shorter regimens in use acceptable for our conditions, although available for individual problematic "cases".

If this drug combination is not used for any reason, there is no satisfactory evidence that treatment with different drugs for nine months, or less, is sufficient to produce both satisfactory resolution of disease and a negligible relapse rate. It cannot be sufficiently emphasized that, if treatment is interrupted by patient default, by toxicity or any other cause, a longer period of treatment will be necessary, and expert advice should be obtained under these circumstances.

The drug treatment of "Atypical" tuberculosis—this is tuberculosis caused by atypical tubercule bacilli—is as yet most unsatisfactory, and there is little evidence that the course of the disease is altered by treatment even with four or more drugs used at the same time. When possible, surgical resection gives more satisfactory results than drug treatment, but unfortunately few patients present with sufficiently limited disease for this to be possible.

Shortly, the British Medical Research Council/EA six-month regimens will have completed its re-testing in the United Kingdom population, and appears most promising. Many patients will obtain the 100 per cent cure rates with these regimens, but only by taking four anti-Tuberculosis drugs initially. This may render some older patients, and those with compromised liver functions, ineligible due to the potentially hepatotoxic combination of drugs.

Monitoring patients under treatment to ensure regularity with drugs and default-action, remains a major constraint to achieving these excellent results in actual practice. Domiciliary visits remain the best available insurance against non-compliance, although this may have to be increased in keeping with wider spectrum of doctors treating Tuberculosis.

TABLE XIX
DOMICILIARY VISITS 1982–1983

Metropolitan—	
Index Patients on Chemotherapy	986
Contacts of Index Patients	92
B.C.G. Administration for Infants and contacts	140
Follow-up of Non-attenders	74
Doctors' Requests	335
Total	1 627
Prince Charles Hospital—	
Country Index Patients	45
Brisbane Divisions Country Area Visits—	
Index Patients, Non-attenders, Etc.	115
Hospitals—	14
Staff Contacts	530

Prompt notification by doctors and early contact with the Chest Clinic ensures regularity of treatment. However, adequate documentation and feedback of data to the Clinic allows early detection of treatment failure and establishes surveillance of quality of treatment with its in-service orientation trade-off.

TUBERCULIN TESTS AND B.C.G. VACCINATION

Tuberculin testing and B.C.G. vaccination for individuals at special risk, and as a part of contact screening exercise, is continuing.

For special sub-segments of the population (e.g. indigenous Australians, migrants, etc.), B.C.G. vaccination is offered at an earlier age, preferably at birth, conveniently at the maternity units of hospitals throughout Queensland.

Routine annual school vaccinations in the Queensland situation may be reviewed after the current round of vaccinations is completed. Table XX gives the breakdown figures of vaccinations for the year 1982, showing high coverage of the uninfected population.

TABLE XX
TUBERCULIN TESTS AND B.C.G. VACCINATIONS FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1982

—	Number Tested	Did Not Return		Positive		Positive after Previous B.C.G.		Negative		Negative after Previous B.C.G.		B.C.G. Given		B.C.G. Not Given or Refused	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Metropolitan (All Persons) at Clinic	4 364	187	4.29	1 263	28.94	1 101	25.23	1 131	25.92	682	14.63	1 480	33.91	333	7.63
Metropolitan and Brisbane Division Schools ..	27 259	1 506	5.52	1 499	5.50	790	2.90	23 136	84.87	328	1.20	23 202	85.12	262	0.96
Country at Clinic	5 849	425	7.27	1 027	17.56	1 531	26.18	2 142	36.62	724	12.38	1 685	28.81	1 181	20.19
Country Schools	11 786	487	4.13	1 883	15.98	403	3.42	8.790	74.58	223	1.89	8 717	73.96	296	2.51
Total	49 258	2 605	5.29	5 672	11.51	3 825	7.77	35 199	71.46	1 957	3.97	35 084	71.22	2 072	4.21

TUBERCULIN TESTS AND B.C.G. VACCINATIONS OF MIGRANTS FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1982

—	Number Tested	Did Not Return		Positive		Positive after Previous B.C.G.		Negative		Negative after Previous B.C.G.		B.C.G. Given		B.C.G. Not Given or Refused	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Metropolitan (All Persons) at Clinic	806	14	1.74	442	54.84	113	14.02	193	23.95	44	5.46	174	21.59	63	7.82
Metropolitan and Brisbane Division Schools ..	2 606	144	5.53	213	8.17	277	10.63	1 866	71.60	106	4.07	1 949	74.79	23	0.88
Country at Clinic	240	10	4.17	111	46.25	65	27.08	48	20.00	6	2.50	30	12.50	24	10.00
Country Schools	366	14	3.83	58	15.85	65	17.76	214	58.47	15	4.10	223	60.93	6	1.64
Total	4 018	182	4.53	824	20.51	520	12.94	2 321	57.77	171	4.26	2 376	59.13	116	2.89

SOCIAL WORKER

The Social Worker has continued to see a number of Chest Clinic patients, and their families, who have presented with social, emotional and financal difficulties, following the onset of illness.

The Social Worker has worked with clients suffering with Tuberculosis, carcinomas, asthma, chronic bronchitis, emphysema and asbestosis. A number of consultations have been made with Chest Clinic staff and their co-operation is particularly acknowledged here.

Illness, particularly with hospitalization required, not only involves the patient, but also his family, friends and the community. It causes a considerable disruption to a previous life-style, and many social problems may become extended, especially if the illness is a long-term one. Here, the patient and his family often need assistance to adjust to a new situation. The question of employment may arise, and is a serious one. Finding suitable employment is often extremely difficult.

Many clients this year have been migrants, including a number of Vietnamese. These people often need special encouragement and help in understanding their illness and their need to continue with their treatment.

During the year, assistance has been received from many agencies, including the Social Security Department, Queensland Housing Commission, The Community Medicine and Community Home Care Services, and other State Government services, and The Prince Charles Hospital. Help from voluntary agencies, such as Lifeline, Salvation Army, St Vincent de Paul, and the Australian Tuberculosis and Chest Association is also gratefully acknowledged.

SOCIAL WORK CARE ANALYSIS

Cases carried forward from 30-6-82	54
New Clients	49
Re-opened Cases	7
Total	110
Number of cases still active at 1-7-83	52

SPECIAL ASPECTS

Atypical mycobacterial infections and diseases continue to pose special problems. Infections are common, interfering with interpretation of tuberculin testing and probably affecting the usefulness of B.C.G. vaccinations. Pulmonary disease due to atypicals is easily confused with typical Tuberculosis, and response to treatment poor. Much experience and research in this field are necessary.

There were two cases of tuberculosis meningitis, both diagnosed at metropolitan hospitals, and managed in close consultation with the Chest Clinic. One patient with advanced disease succumbed to the illness, and the other progressing well under chemotherapy. Both the patients were from outside Australia.

At the Tuberculosis conference in Buenos Aires in 1982, a number of papers were presented on surveillance of Tuberculosis, both to assess the magnitude of the problem, as well as the Tuberculosis control measures. New techniques have been suggested to monitor these aspects of Tuberculosis, particularly relevant to technically advanced countries. We hope to utilize some of these methods in the future.

There is a continuing need for more sophisticated statistics for data storing and meaningful interpretation. For this purpose, computer assistance is felt to be most important.

OTHER DISEASES

The Chest Clinic continues to handle a large number of non-Tuberculosis chest diseases. This requires continuation of fully equipped Chest Clinic and appropriate staff.

Chest physicians of the Chest Clinic continue to have visiting physicians' arrangements with The Prince Charles Hospital, where they fully participate in tuberculosis and non-tuberculosis in-patient and out-patient activities.

COAL BOARD SURVEY

A combined Coal Board and Department of Health survey of coal miners which commenced in March, 1983, has completed X-raying miners around the Brisbane area. They are now operating in up-country areas and it is hoped that a total of about 6 000 miners will be X-rayed. During the survey, automated respiratory functions are also carried out. It is hoped that after the completion of the survey, an in-depth analysis of the results will be carried out.

Incidentally, one case of active Tuberculosis was diagnosed during this survey.

DIVISION OF HEALTH AND MEDICAL PHYSICS

Director: J. P. McGILVRAY, M.Sc.

Physicists: D. F. MINES, M.Sc.
L. G. HINSCH, B.Sc. M.App.Sc.(Medical Physics)
R. N. CASEY, M.App.Sc.(Medical Physics)

Technical Officer (Radiography): N. H. SERICO, M.I.R.

Chief X-Ray Engineer: P. G. McNEILLY

Senior Electronic Technician: A. J. DORAN

Senior Dental Servicing Officer: N. NEIL

Instrument Maker: H. R. HUNT

The demand for services provided by this Division continued to grow due to the continued expansion and upgrading of patient-related equipment in health care services. This demand required a further redirection of many technical support programmes with additional curtailment of regular maintenance and expansion of breakdown services. The need to inspect a large number of sites suspected of containing contaminated material produced by mineral sand practices resulted in a curtailment of some Health Physics programmes.

The activities of the Division are described below. For the purpose of comparison the activities for the previous financial year have been entered in brackets following the values for this year.

The activities of the Division for 1982–83 may be considered under the following headings:—

(a) Health Physics Service;
(b) Medical Physics Service;
(c) Radiographic Advisory Service;
(d) X-ray Engineering Group;
(e) Medical Electronics Group;
(f) Dental Servicing Group;
(g) Instrument Repair Section;
(h) Education and Training;
(i) Committee Work.

(a) Health Physics

This service, in conjunction with the Radiographic Advisory Service, carried out 47 (76) assessments of applicants for a licence to use irradiating apparatus, required under the *Radioactive Substances Act Amendment Act* 1978.

The Radiological Advisory Council granted 793 (719) licences and renewals of licence for irradiating apparatus and 343 (352) licences and renewals of licence for radioactive substances. An increase in the use of irradiating apparatus in the State resulted in the issuing of 928 (912) Certificates of Registration and renewals of Certificate.

The Radiation Monitoring Service provided 26 415 (27 256) services for the monitoring of radiation exposure of occupationally exposed personnel. The remaining dosimetry for a new personal radiation monitoring system was received during the year.

An intensive programme of surveying sites likely to have been affected by mineral sand mining practices was undertaken. Two hundred and forty-six surveys (7) were carried out on 217 (7) sites in the metropolitan area. An additional 68 (0) surveys were carried out on 38 (0) sites outside the metropolitan area. Seventy-one (0) samples were assayed to determine gross activity levels and a further 11 (0) samples were analysed to identify the radionuclides present and their activities. The analyses of samples were conducted by the Physics Department, Queensland Institute of Technology and the Government Analyst. In addition, the results of in excess of 400 (0) screening surveys carried out by the Division of Environmental and Occupational Health were reviewed and evaluated.

A detailed investigation of industrial practices was carried out to determine acceptable release procedures for operational mineral sand processing mills. These have been adopted by the Mines Department and are being implemented by operators. Detailed investigations of a number of sites, to determine their suitability as disposal sites for contaminated material, have been carried out. An estimated 1 000 phone enquiries were received and numerous interviews were held with members of the public concerned about mineral sand practices.

In addition, this service has participated in the evaluation of decommissioning proposals for the Mary Kathleen Uranium mine and proposals for the commissioning of a uranium mine in North Queensland. This has involved liaison with the Mines Department, Water Quality Council, mining Companies and their consultants.

During the year, this service took delivery of equipment for the identification and measurement of activities of some radionuclides. This equipment is currently being commissioned and trialled.

Thirty-nine (66) inspections were made of premises occupied by persons licensed to possess and/or use radioactive substances or irradiating apparatus.

Advice was given on the radiation protection requirements for 38 (16) new or modified X-ray installations.

In the field of non-ionizing radiation, eight (9) microwave ovens and two (0) ultraviolet emitting devices were inspected.

(b) Medical Physics

The major involvement of this service was with equipment-related activities—inspection, consultation and notification of hazards.

Thirty-six (26) items of electromedical equipment were subjected to examination to Australian Standards. The increase is due to the renewal of contracts for several items, requiring inspection of items tendered for contract purchase. Twenty-four (15) were acceptable, the most common reason for rejection was the use of non-approved power cords. Seven (4) of these units were later resubmitted and accepted.

Frequent informal contact was made with the State Electricity Commission ensuring a common approach to acceptable methods of equipment construction.

Consulting services regarding equipment purchases were used heavily during the year, with many calls from country hospitals regarding the availability of suitable equipment. Other matters included the provision of Class A electrical areas for patient safety and safe practices in equipment use.

Two (2) serious deficiencies in equipment, potentially damaging to patients, were detected in the State and communicated to all States and other interested parties by the Hazard Alert system. Six (7) alerts originating in other States were circulated. Internationally advised and verified hazards were circulated to major hospitals at regular intervals.

(c) Radiographic Advisory Service

Visits to hospitals for the purpose of inspecting facilities, assessing quality of work and tuition of staff amount to 101 (148).

The relieving radiographer service provided 72 (68) periods to country hospitals.

Thirty chiropractic centres were inspected.

(d) X-ray Engineering Group

A total of 445 (534) items of X-ray equipment required the attention of this group because of breakdowns. Of these, 110 (190) were solved by the operator, radiographer or local electrician, acting under the direction of the X-ray engineer by telephone. A further 100 (61) units were repaired in the workshop, leaving 235 (283) requiring a visit by an X-ray engineer.

The group made 102 (107) visits to hospitals to perform routine maintenance.

The group was involved in 10 (8) installations of X-ray equipment in hospitals.

(e) Medical Electronics Group

A total of 207 (185) regular service visits were made to hospitals to maintain electromedical equipment, carry out on-site repairs where possible, and offer advice and instruction to operators. In addition, 977 (1051) items were serviced in the workshop.

Pre-delivery tests and inspections were carried out on 204 (268) items of new equipment prior to despatch to hospitals.

Monitoring of implanted cardiac pacemakers were performed for 194 (216) patients in 15 (18) hospitals.

Service of equipment used by home dialysis patients and similar equipment installed in country hospitals is performed by a subsection of the Medical Electronics group. During the year, 141 (137) problems were rectified. Twenty (18) units were recalled from use for complete overhauls, while another 10 (19) units were inspected, overhauled and tested prior to issue to patients. A total of 51 (43) regular maintenance visits were made.

The on-call service, established to handle out-of-hours problems, handled 12 (3) problems.

(f) Dental Servicing Group

Regular service visits to maintain equipment, carry out on-site repairs where possible, and offer advice and instruction to operators, were made to country hospitals and school dental clinics. A breakdown service is provided for dental clinics, metropolitan and country hospitals.

A total of 531 (570) visits were made to fixed school clinics, 413 (292) visits to dental caravans and 50 (84) visits to school training centres.

Equipment was installed in 10 (20) dental caravans. No (0) fixed school installations were carried out.

Regular service visits to hospital clinics totalled 373 (363). Installations were carried out in 13 (10) surgeries.

Instrument repairs carried out in the workshop totalled 1 268 (1 340), while repairs to other types of dental equipment decreased to 314 (357).

Special breakdown visits were made to 23 (33) country hospital clinics and school dental clinics.

(g) Instrument Repair Section

This section receives instruments for repair direct from hospitals as well as repairing sub-assemblies for other service groups. When required, special purpose tools and instruments not available commercially are designed and fabricated.

A total of 218 (212) instruments were received from hospitals for repairs. In addition, 815 (849) items were repaired or manufactured for other service groups.

A total of 15 (54) special purpose instruments or accessories were manufactured. These ranged from a shielded enclosure for a nucleonic detector to accessories for use with diagnostic X-ray equipment.

(h) Education and Training

Education and training are important components of regular service visits by all service groups. Benefits include improvement to the safety of operators and patients, more effective use of equipment, a reduction in the incidence of breakdowns and diminished unplanned downtime.

At a more formal level, staff of the Division took part in the following:—

Training course for medical officers appointed to country hospitals;

Training course for dental officers appointed to country hospitals;

Lectures to dental therapists on care and maintenance of dental equipment;

Training programmes in radiography were arranged for Mr J. Kari, Mr J. Wapi, Ms M. Tolnai and Ms B. Suna from Papua New Guinea.

Mr Dobson spoke to the Dialysis Society of Australia, Queensland Branch, on Diagnostic Imaging Aids in the Diagnosis of Renal Function.

Mr D. Mines spoke to the Scientific Industries Council of Queensland on the functions of the Division.

Mr J. McGilvray spoke to a joint symposium of the Queensland branches of the Australian College of Physical Scientists in Medicine and the Institution of Biomedical Engineering on the provision of physical science services for a large region.

Mr R. Casey attended the 22nd Conference on Physical Sciences and Engineering in Medicine and Biology in Perth.

Mr L. Hinsch attended the 7th Australian Radiation Protection Society Conference in Canberra.

(i) Committee Work

In addition to membership on a number of Departmental Advisory Committees, officers of this Division are members of the following committees:—

Mr McGilvray is a member of Standards Association of Australia Committees, EL18/10 on the Safety of Fixed Radiological Installations; TE1/2 on Hazards of Non-Ionizing Radiation; Chairman of EL18/8 on Dental and Mobile X-ray Machines. He is also a member of the Queensland Radium Institute, Radiological Advisory Council of Queensland; Advisory Committees on Medical Physics and Radiography at the Queensland Institute of Technology; Commonwealth/State Consultative Committee on Management of Radionuclide Waste; and the Radiation Health (Standing) Committee of NH & MRC.

Mr Mines is a member of Standards Association of Australia Committees, EL18, Electromedical Equipment; EL18-Ex, Executive Committee; EL18/1, Safety Requirements; EL18/4, Baby Incubators; EL18/11, Safe Use of Electricity in Hospitals; and the Commonwealth Therapeutic Goods Standards Committee Sub-Committee on Electromedical Devices.

Mr Hinsch is Secretary to the Radiological Advisory Council of Queensland and a member of Standards Association of Australia Committee; SF/19, Protection Against Laser Radiation; Commonwealth/State Co-ordinating Committee established under the Environmental Protection-Nuclear Codes Act.

Mr Serico is a member of the Radiological Advisory Council of Queensland.

DIVISION OF CHILD HEALTH

Acting Director: Dr J. F. McFARLANE, M.B., B.S., F.R.C.P., M.F.C.M., F.R.A.C.M.A.

In October, 1982, a re-organization of the Health Department took place which resulted in Maternal and Child Health and School Health Services being united as a Division of Child Health under a Director with Assistant Directors in charge of Maternal and Infant Health and School Health Services. The new Division became one of the responsibilities of the Assistant Director-General of Community and Public Health. It is anticipated that the restructuring will help to provide a co-ordinated approach to the development of preventive health services for children.

MATERNAL AND INFANT HEALTH SERVICES

Assistant Director: Dr J. F. McFARLANE, M.B., B.S., F.R.C.P., M.F.C.M., F.R.A.C.M.A.

Deputy Director: Dr L. BURLESS, M.B., B.S.

Medical Officers:

Dr J. F. TAIT, M.B., B.S.
Dr E. NICHOLSON, M.B., B.S., F.R.A.C.P.

Nursing Superintendent: J. HENRY, S.R.N., Dip.N.Admin., F.C.N.A., Grad.Dip.E.C.S.

Deputy Nursing Superintendent: A. M. S. LIVINGSTONE, S.R.N., Dip.N.Admin., F.C.N.A.

Supervisors:

M. GLEN, S.R.N.
L. FIORI, S.R.N.
E. McLOUGHLIN, S.R.N., till 8-4-83

SERVICE PROVIDED

Baby Clinics	
Metropolitan Centres	15
Metropolitan Sub-Centres	74
Country Centres	34
Country Sub-Centres	190
Special Centres—	
Mobile Vans—Brisbane	51 stops
Mobile Van—Cairns Mobile Van—Gold Coast Mobile Van—Mackay Mobile Van—Townsville	57 stops
From Three Royal Flying Doctor Service Bases	69 stops
Toddlers Clinic	61 clinics
Ante-Natal Clinic	3 clinics
Medical Baby Clinics	8 clinics

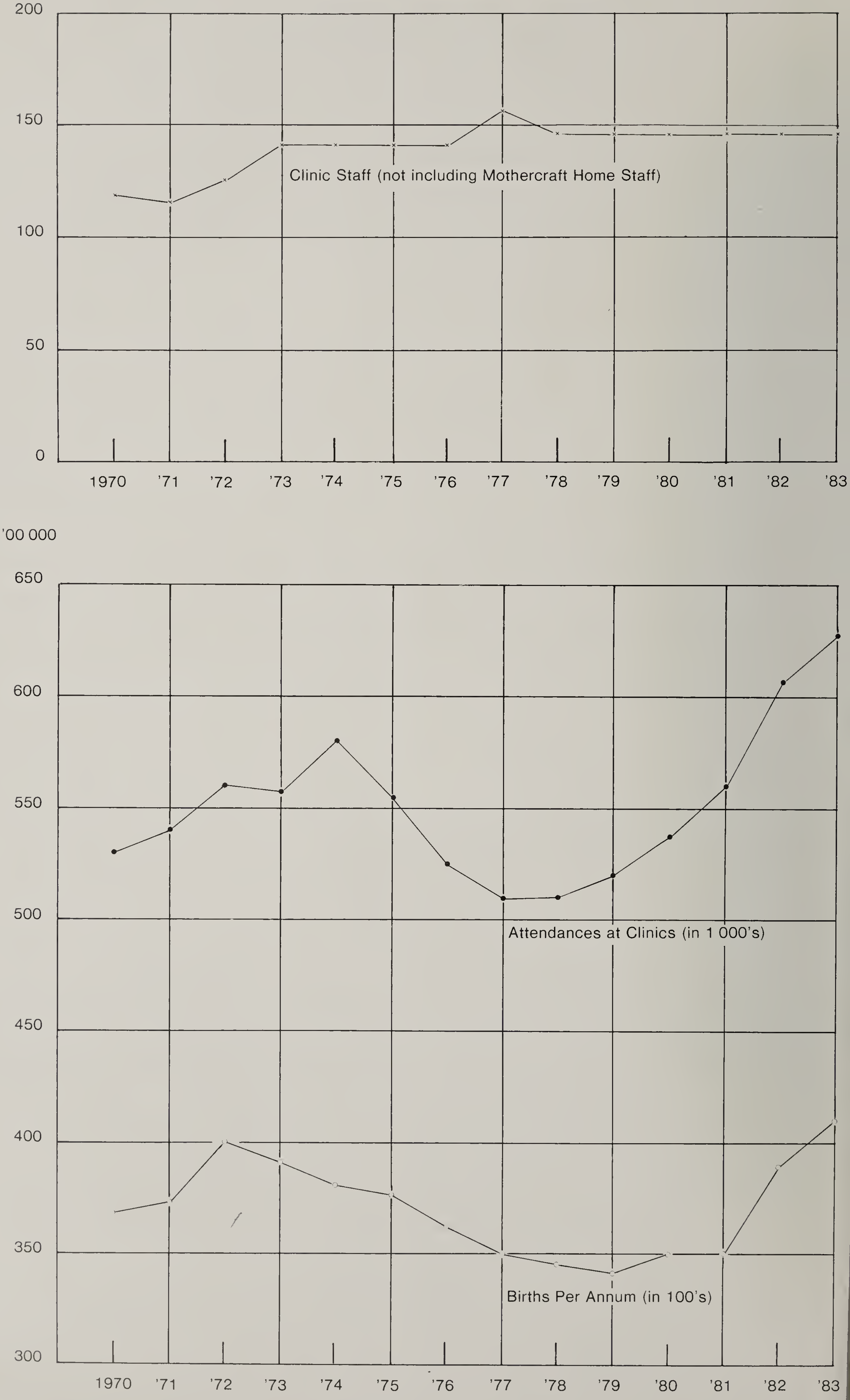
INTRODUCTION

During 1982, more babies were born in Queensland than ever before for a single year—40 540. Over the last 3 years there has been a dramatic rise from 34 972 to 38 834 and now 40 540. This has resulted in a considerable increase in the workload of the baby clinics sister as there has been no staff increase for some years. (see figure). Six senior sisters, Misses McLoughlin (Nurse Supervisor), Richards, Carmichael, Harrison, Devere and Elliott, have retired during this period.

To cope with the increased work, changes have been made to rosters and new clinic buildings were purchased at Clermont, Broadbeach and Capalaba. A new clinic building was opened at Caloundra by Hon. Mike Ahern, M.L.A., on 28th September, 1982.

In 1982–83, 627 539 visits were made to the baby clinic compared to 603 209 in 1981–82 (see figure).

RATIOS OF ATTENDANCES: BIRTHS: CLINIC STAFF



ANALYSIS OF CENTRE WORK

There has been a marked increase over the last 3 years in the use made by mothers of the telephone in seeking advice from the clinics sister—27 302 calls in 1980–81, 32 246 in 1981–82 and 34 200 in 1982–83. This change in pattern of seeking advice may be due to the fact that the phone gets the sister's attention immediately and there is no need then for the mother and baby to sit in a busy waiting room. As far as the staff are concerned, it results in a marked increase in workload. The increase in births continues to be reflected in a rise in clinic attendances (a rise in one year of 24 330). The infant mortality rate continues to fall from 10.9 deaths per 1 000 live births in 1981 to 10.7 deaths per 1 000 live births in 1982 in spite of the rise in overall births.

At the clinic, 12 441 feedings were supervised and 6 221 demonstrations in food preparation were given to the mothers. In some country areas the clinics sisters give the Parentcraft lectures at the schools in the district.

Year	Birth
1976	35 243
1977	34 935
1978	34 465
1979	35 195
1980	34 972
1981	38 834
1982	40 540

PUBLICATIONS

The following newsletters were distributed during the year to metropolitan and country newspapers:—

Should We Discipline Our Child
Are We Expecting Too Much Of Our Children
Readiness For School
Are Children Becoming "SOCIAL" Drinkers?
Summer And You
Worries In Early Days.

SPECIAL LECTURES

During the year, staff from the Maternal and Infant Health Service gave lectures on request to a number of groups including—dental therapy students; kindergartens; church groups; clubs; associations; School Health Service Orientation; Community Health Orientation; and Aboriginal Health.

SPECIAL BABY CLINICS

Mobile Vans

The mobile vans continue to provide a baby clinic service for mothers in isolation whether it be in a city suburb or a country town—six are located in Brisbane and one in each of the following towns:—Gold Coast, Townsville, Mackay and Cairns. In all, 54 175 visits were made compared to 57 762 the previous year.

Rail Car

December, 1982, saw the end of an era as the Rail Car which served the Winton, Hughenden and Julia Creek area for many years was withdrawn from service. The area is now serviced by motor car. The mode of operation from a railway coach was that used to establish the service in the outback 50 years ago. Over the years as towns developed and roads have improved, permanent clinics serviced by road have gradually replaced the rail car. The car has been donated to the Railway Historical Society as it is 1917 vintage—probably the last one in full operation.

The attendances for the 6 months prior to cessation of the service were 939.

Royal Flying Doctor Service

Maternal and Infant Health sisters continue to work with the Royal Flying Doctor Service from their bases at Charleville, Mount Isa and Cairns. Many isolated families are provided with professional help that otherwise would be too far away. During the year, 5 422 children attended the clinic as compared with 5 261 the previous year. The sisters co-operated well with the Royal Flying Doctor Service, acting as a part of their retrieval team particularly in the Cairns area.

HOME VISITING

In Brisbane, the two Home Visiting Sisters made 4 112 visits to mothers and babies. This service is of immense value to mothers with frail babies. The work of the home visiting sister may increase if plans to send mothers and babies home from the Maternity Hospitals after 2 days are put into operation. In country areas the local clinic sisters made a total of 892 home visits to babies not seen at the time of hospital visiting or who had defaulted with an expected clinic attendance.

DOCTOR'S CONSULTING CLINICS

Clinics where medical advice *re* feeding management problems is available are conducted at Fortitude Valley, Woodridge, Chermside, Inala, Wynnum, Ferny Hills, Sandgate and Coorparoo. A total of 3 704 visits were made to these clinics. The Fortitude Valley Clinic continues to be the main centre from which telephone advice is sought, and 2 330 phone consultations were made there during the year.

PRE-SCHOOL HEALTH SERVICES

This year, the clinic sisters throughout the State acted as Co-ordinators of a vision screening programme in kindergartens conducted by general practitioners through the auspices of the A.M.A. and College of General Practitioners. In all, the vision of 2 566 children was tested at 96 centres. Problems were confirmed in 0.2 per cent of the group. However, of the 185 referred for further assessment, forms were returned for only 86.

GENERAL PRACTITIONERS VISION SCREENING IN KINDERGARTENS

——	Number	Per cent
Number Tested	2 566	
Cases Referred	185	7.2%
Problems Confirmed ..	18	0.2%

General medical examination of the pre-school child was carried out at 27 metropolitan centres, 13 country centres, nine child care centres and 12 pre-schools and kindergartens. Interest in this examination in the community is good—staff limitations at the present time are restricting the development of this service.

AN ANALYSIS OF PRE-SCHOOL HEALTH CLINIC WORK

——	New Patient	Subsequent Visits	Average per Clinic	Number of Clinics held
Metropolitan Clinic	3 244	4 604	18.1	434
Country Clinic ..	1 590	926	10.8	232
Totals	4 834	5 530	15.6	666

REFERRALS FROM PRE-SCHOOL HEALTH CLINICS

Type of Referral	Metropolitan	Country	Total
Doctor	213	186	399
Hospital	71	13	84
Dentist	30	9	39
Child Guidance ..	28	1	29
Speech Therapist ..	20	25	45
Spastic Centre	..	..	..
Physiotherapist ..	..	3	3
Dietitian	..	1	1
Tests—			
X-rays	..	3	3
Hearing Tests ..	85	22	..
Haemoglobins and Smears	28	1	29
Micro urines ..	58	..	58
Faeces cultures ..	46	..	46
Vaginal Swabs ..	4	..	4
Sweat Chloride ..	1	..	1
ECG	..	..	..

MOTHERCRAFT HOMES

Feeding and management problems in both artificially fed and breast fed babies are the main reasons for the admission of babies to the Mothercraft Homes. There are an increasing number of single mothers requiring assistance and instruction. Family social problems are increasing in number.

The St. Paul's Terrace Home is the training centre for nurses studying for their Child Health Certificate (a total of 3 416 successful candidates) and the Clayfield and Ipswich homes train teenagers for a certificate of competency as a Child Health Assistant (1 669 successful candidates). During the year, four Aboriginal babies from Doomadgee (near Mount Isa) spent some time in the St. Paul's Terrace Home.

——	Clayfield		St. Paul's		Ipswich	
	1981	1982	1981	1982	1981	1982
Babies and Children Admitted	174	201	189	195	188	210
Mothers Admitted	97	88	99	98	99	114
Daily Average—						
Babies	8	10.8	10.7	9.6	4.9	3.3
Mothers	1.3	2.9	2.4	2.5	1.6	1.9
Day Admissions	20	32	170	146	..	..

Sandgate Home

The average duration of stay of children in this child minding home was 18.9 days. A total of 435 families (909 children) benefited from this service. The babies' home was closed during the year, and the babies and toddlers cared for since then have been accommodated at the Clayfield, Ipswich and St. Paul's Terrace Homes.

NEONATAL SCREENING

The neonatal screening programme has been expanded to include screening for cystic fibrosis and galactosemia as well as for phenylketonuria and hypothyroidism. During the year, 40 612 tests were carried out by the Laboratory of Microbiology and Pathology. In all, 98.9 per cent of the new-born population were tested.

Condition	Cases Detected in 1982–83	Total (now identified)
Phenylketonuria	1	41
Hypothyroidism	9	27
Cystic Fibrosis	11	11
Galatosemia	2	2

There were 1 933 repeat tests requested (12 for PKU, 324 for hypothyroidism, 383 for cystic fibrosis and 10 for galactosemia). It is anticipated that the repeat tests requested to diagnose galactosemia will fall as normal standards are developed for this community. Tests have also been carried out on a further 400 babies resident in the Northern Territory and Papua New Guinea.

One raised level for PKU was found in 970 ante-natal mothers.

CORRESPONDENCE SECTION

During the year, 293 mothers received assistance with problems relating to the care of their baby.

——	1981–82	1982–83
Number of Birth Notifications received	948	895
Number of Circulars posted—		
(No. 1) within reach of a centre	722	709
(No. 2) not within reach of a centre	226	186
Letters to Correspondence in response to Circular No. 2	53	56
Letters of advice re feeding and management	326	293
Number of " Growing—Care of Mother and Child " sent on request and given	193	261
Number of pamphlets sent advising Immunization	948	895
Number of birthday cards sent during the year	32	28
Number of Telephone Calls re feeding and Management	3 690	3 354

ANTE-NATAL SECTION

Most patients attending Ante-Natal Clinics provided for mothers at the baby clinics (Woodridge, Inala and Chermside) attend for their first visit the Ante-Natal Clinics at the Royal Women's Hospital and the Mater Mother's Hospital; they then attend these clinics again for the final month before delivery. During the year, attendences at special film showings numbered 721 while 43 mothers attended a full course of special lectures designed for the Expectant Mother. A correspondence service continues to be of assistance to isolated mothers. (See Tables.)

SPECIAL ACTIVITIES RELATED TO ANTE-NATAL CLINICS

——	1981–82	1982–83
Home Visits to Clinic defaulters	3	2
Transfers of patients to Maternal and Child Health Clinics	941	1 036
Talks to Ante-Natal Mothers (Woodridge, and Inala)	33	43
Attendances at film, Inala, Woodridge	749	721
Circular letters forwarded to Expectant Mothers (No. 1)	6 845	8 961
Circular letters forwarded to Expectant Mothers (No. 3)	2 357	2 544
Response to Circular Letter	2 219	2 986
Serial Letters sent to Expectant Mothers	16 803	23 327
Letters received from Expectant Mothers	213	243
Special Letters of advice sent on request	97	120
Copies of " The Expectant Mother " book sent on request	290	2
Requests from country centres and hospitals for " The Expectant Mother " book	..	..
Copies of " Before and After—The Facts and Functions of Childbirth " sent on request	1 876	3 022
Requests from country centres and hospitals for copies of " Before and After—The Facts and Functions of Childbirth "	5 551	1 164
Copies of Maternity Belt Patterns sent	..	1

SUMMARY OF ANTE-NATAL PATIENTS

Clinic	New Patients		Subsequent Visits		Post-Natal Examination		Transfers		Papanicolau Smears	
	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982
Inala	..	..	1 870	2 048	160	172	387	430	3	11
Woodridge	..	..	1 858	2 362	115	167	459	606	2	7
Chermside	153	220	1 377	1 965	110	134	..	..	..	..
Totals	153	220	5 105	6 375	385	473	846	1 036	5	18

LECTURES IN PARENTCRAFT

During the year Parentcraft Lectures were given at 289 schools or institutions. A preliminary trial of a new type of programme was carried out at three metropolitan schools. The trial proved to be very successful. The Division of Health Education is co-operating in designing an activity book, graphics and slides for the use of the sister conducting the course. There continues to be a demand for boys to be able to take part in the programme. At the present time, the staff situation is such that only a few boys' classes can be included.

State High Schools	140
State Secondary Department Schools	59
Church Schools	42
State Special Schools	47
State Primary Schools	1

The State has been divided into regions for ease of instruction. In isolated areas the local baby clinic sister gives the instruction.

Area	State High Schools	State Secondary Department Schools	Church Schools	State Special Schools	State Primary Schools	Total Number of Schools
Metropolitan	62	4	16	25	..	107
South East	15	8	3	3	..	29
Darling Downs	14	12	8	6	..	40
Central Coast	16	5	2	5	..	28
Far North	16	5	7	4	..	32
Serviced by Clinic Staff	15	24	6	4	1	50
Thursday Island Aboriginal and Islanders Advancement	1	..	..	..	..	1
Bamaga	1	..	..	..	..	1
Doomadgee (Missionary)	..	1	..	..	..	1
Totals	140	59	42	47	1	289

PARENTCRAFT STATISTICS

Total Number of Schools	289
Total Attendance	21 724
Total Number of Successful Students	14 807

STATISTICS IN AREA DISTRIBUTION

Area	No. of Schools	Attendance	Examination Candidates	Successful Students	Project Book Only	Paper Only	Disqualified
Metropolitan	107	10 590	8 327	7 743	58	1 537	12
South East	29	2 421	1 782	1 586	21	376	..
Darling Downs	40	2 175	1 752	1 541	17	208	..
Central Coast	28	2 296	1 794	1 578	21	312	..
Far North	32	2 184	1 622	1 421	39	335	..
Serviced by Clinic Staff	50	1 984	1 058	879	37	516	..
Thursday Island D.A.I.A.	1	33	29	28	2	1	1
Bamaga	1	26	21	20	..	5	1
Doomadgee (Missionary)	1	15	15	11	..	..	..
Totals	289	21 724	16 400	14 807	195	3 290	12

BABIES SUFFERING FROM COLIC

The survey begun last year on infants suffering from colic was continued, and 205 babies (116 males and 89 females) of a total of 1 320 babies referred to a doctor's clinic were found to require treatment. The following tables analyse the data, and a comparison is made with 296 babies (159 males and 137 females) investigated last year.

AGE OF PRESENTATION

Age	1981–82		1982–83	
	Males	Females	Males	Females
Less than 4 weeks	53	47	18	23
4–8 weeks	68	55	62	43
8–12 weeks	22	24	22	11
12–16 weeks	6	5	8	8
16–20 weeks	5	2	5	3
20–25 weeks	1	1	1	1
25–30 weeks	2	1	..	..
30–35 weeks	1	1	..	..
Unknown	1	1	..	..
Total	159	137	116	89

AGE OF MOTHER

Age of Mother	Number 1981	Percentage 1981	Percentage of Total Births in 1981	Number 1982	Percentage 1982
20 years	27	9	9	12	6
20–24 years	94	31	32	58	28
25–29 years	111	38	25	94	46
30–34 years	51	17	18	30	14
35 years	12	4	6	11	6
Not known	1	..	..	..	..

PLACE IN FAMILY

Place of Baby in Family	Number 1981	Percentage 1981	Percentage of Total Births in 1981	Number 1982	Percentage 1982
1	168	57	40	118	58
2	85	29	34	59	29
3	26	9	18	17	8
4	10	3	5	8	4
5+	7	2	3	3	1

COMPLICATIONS AT DELIVERY

Complications at Delivery	Number 1981	Number 1982
Normal	162	120
Forceps	56	37
LUSCS	53	32
Breech	7	5
Face Presentation	4	2
Persistent Occipito-Posterior	4	..
Vacuum Extraction	..	6
Impacted Shoulders	..	1
Unknown	10	2
Total	296	205

HEAD AND CHEST CIRCUMFERENCE

Data was assembled from various areas throughout the State for the year ending December, 1981 relating to length, head circumference and chest circumference. - The values obtained correspond with those found in the National Health and Medical Research Council report 1970-72—although at one year of age both males and females in Queensland are approximately 1.5 cm taller than anticipated.

LENGTH

——	3 months			6 months			9 months			12 months		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Cairns	118	136	254	109	111	220	56	60	116	14	20	34
Townsville	134	115	249	128	118	246	97	84	181	70	58	128
Mackay	148	131	279	136	120	256	113	97	210	91	81	172
Dalby	79	63	142	39	36	75	13	12	25	..	1	1
Goondiwindi	148	118	266	114	93	207	87	69	156	65	40	105
Weipa	20	13	33	15	11	26	12	11	23	8	14	22
Longreach	37	37	74	22	19	41	11	5	16	1	..	1
Strathpine	94	91	185	89	85	174	65	72	137	54	57	111
Indooroopilly	124	113	237	118	101	219	94	72	166	69	52	121
Fortitude Valley	83	76	159	71	65	136	36	39	75	18	20	38
Chermside	30	32	62	30	29	59	19	21	40	18	19	37
Jindalee Middle Park	75	87	162	74	90	164	61	71	132	61	72	133
Ipswich Camira	128	175	303	126	166	292	114	152	266	107	163	270
Oxley Graceville	45	40	85	45	39	84	30	32	62	18	10	28
Ferny Hills Keperra Mitchelton Enoggera Everton Park	175	154	329	110	110	220	47	53	100	9	19	28
Clayfield and Hamilton	37	35	72	30	27	57	13	9	22	7	5	12
Inala	64	48	112	40	32	72	26	21	47	20	18	38
Sundry	33	44	77	29	33	62	24	19	43	14	12	26
	1 572	1 508	3 080	1 325	1 285	2 610	918	899	1 817	644	661	1 305

	M	F	M	F	M	F	M	F
Average Length—								
Mean (cm)	62.1	60.1	68.8	67.3	73.5	71.9	77.4	75.8
Mode (cm)	61.0	61.0	70.0	66.0	74.0	71.0	76.0	76.0
Mean (cm)			69.9	68.1			76.0	74.3

HEAD CIRCUMFERENCE

Centres	3 months			6 months			9 months			12 months		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Cairns	119	133	252	109	112	221	56	60	116	14	20	34
Townsville	134	119	253	128	119	247	97	84	181	72	59	131
Mackay	148	129	277	136	121	257	112	96	208	91	80	171
Dalby	79	64	143	39	37	76	14	12	26	..	..	..
Goondiwindi	148	116	264	116	94	210	86	68	154	68	42	110
Weipa	20	13	33	15	12	27	12	11	23	8	14	22
Longreach	37	38	75	22	19	41	11	5	16	..	..	..
Strathpine	94	91	185	89	85	174	65	73	138	55	57	112
Indooroopilly	129	113	242	119	102	221	96	72	168	69	51	120
Fortitude Valley	83	79	162	71	66	137	36	40	76	18	20	38
Chermside	30	31	61	29	29	58	19	21	40	18	19	37
Jindalee Middle Park	75	87	162	74	92	166	61	71	132	62	72	134
Ipswich Camira	128	175	303	126	165	291	114	151	265	107	162	269
Oxley Graceville	45	37	82	45	39	85	31	32	63	18	10	28
Ferny Grove Keperra Enoggera Everton Park	175	156	331	110	111	221	47	53	100	10	18	28
Clayfield Hamilton	38	36	74	30	28	58	13	9	22	7	4	11
Inala	64	67	111	40	32	72	26	21	47	21	19	40
Hendra	33	44	77	29	33	62	24	18	42	16	12	28
	1 579	1 508	3 087	1 327	1 296	2 624	920	897	1 817	654	659	1 313

	M	F	M	F	M	F	M	F
Average H.C.—								
Mean (cm)	41.1	40.0	44.2	43.0	46.1	44·9	47,6	46.1
Mode (cm)	41.0	40.0	44.0	43.0	46.0	45.0	48.0	46.0
Mean (cm)			44.3	43.2			46.5	45.2

CHEST CIRCUMFERENCE

——	3 months			6 months			9 months			12 months		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Cairns	92	135	227	90	111	201	42	60	102	13	20	33
Townsville	135	117	252	127	119	246	98	86	184	71	60	131
Mackay	146	130	276	135	120	255	109	96	205	90	79	169
Dalby	79	64	143	39	35	74	13	12	25	. .	. .	. .
Goondiwindi	147	117	264	113	94	207	85	68	153	66	42	108
Weipa	20	13	33	14	12	26	12	11	23	8	13	21
Longreach	37	38	75	22	19	41	11	5	16	. .	. .	. .
Strathpine	94	91	185	89	85	174	65	72	137	53	56	109
Indooroopilly	127	113	240	119	101	220	96	71	167	69	40	109
Fortitude Valley	80	78	158	71	66	137	36	40	76	18	20	38
Chermside	30	31	61	30	29	49	19	20	39	18	18	36
Jindalee Middle Park	73	85	158	72	92	164	59	71	130	62	71	133
Ipswich Camira	128	171	299	126	164	290	114	150	264	106	159	265
Oxley Graceville	46	38	84	45	39	84	30	31	61	17	10	27
Ferny Grove Keperra Enoggera Everton Park	175	156	331	109	111	221	47	51	98	9	16	25
Clayfield Hamilton	38	36	74	29	28	57	13	9	22	7	4	11
Inala	64	48	112	40	32	72	26	21	47	21	19	40
Hendra	32	42	74	29	33	62	24	18	42	16	12	28
	1 543	1 503	3 043	1 300	1 290	2 580	899	892	1 791	644	639	1 283
	M	F		M	F		M	F		M	F	
Average C.C—												
Mean (cm)	41.1	40.0		44.1	43.4		46.6	45.6		48.3	47.0	
Mode (cm)	41.0	40.0		44.0	43.0		47.0	45.0		48.0	47.0	

MATERNAL MORTALITY COMMITTEE

Members: Dr P. G. Livingstone, Dr M. D. Mahoney, Dr J. Campbell, Dr A. Davison, Dr R. Drake, Dr E. Popper, Dr E. J. Esler, Professor E. V. Mackay, Mr O. M. May, Dr J. McFarlane (Secretary), Dr P. D. Livingstone, Dr L. Brunello, Dr Des Dann.

During 1981, three mothers died in Queensland as a result of complications occurring during delivery of a baby. The rate of death in Queensland—0.077 deaths per 1 000 live births—was lower than the Australian average of 0.106 deaths per 1 000 live births (25 deaths). During 1982–83, four meetings of the Maternal Mortality Committee were held to discuss maternal deaths and deaths associated with pregnancy.

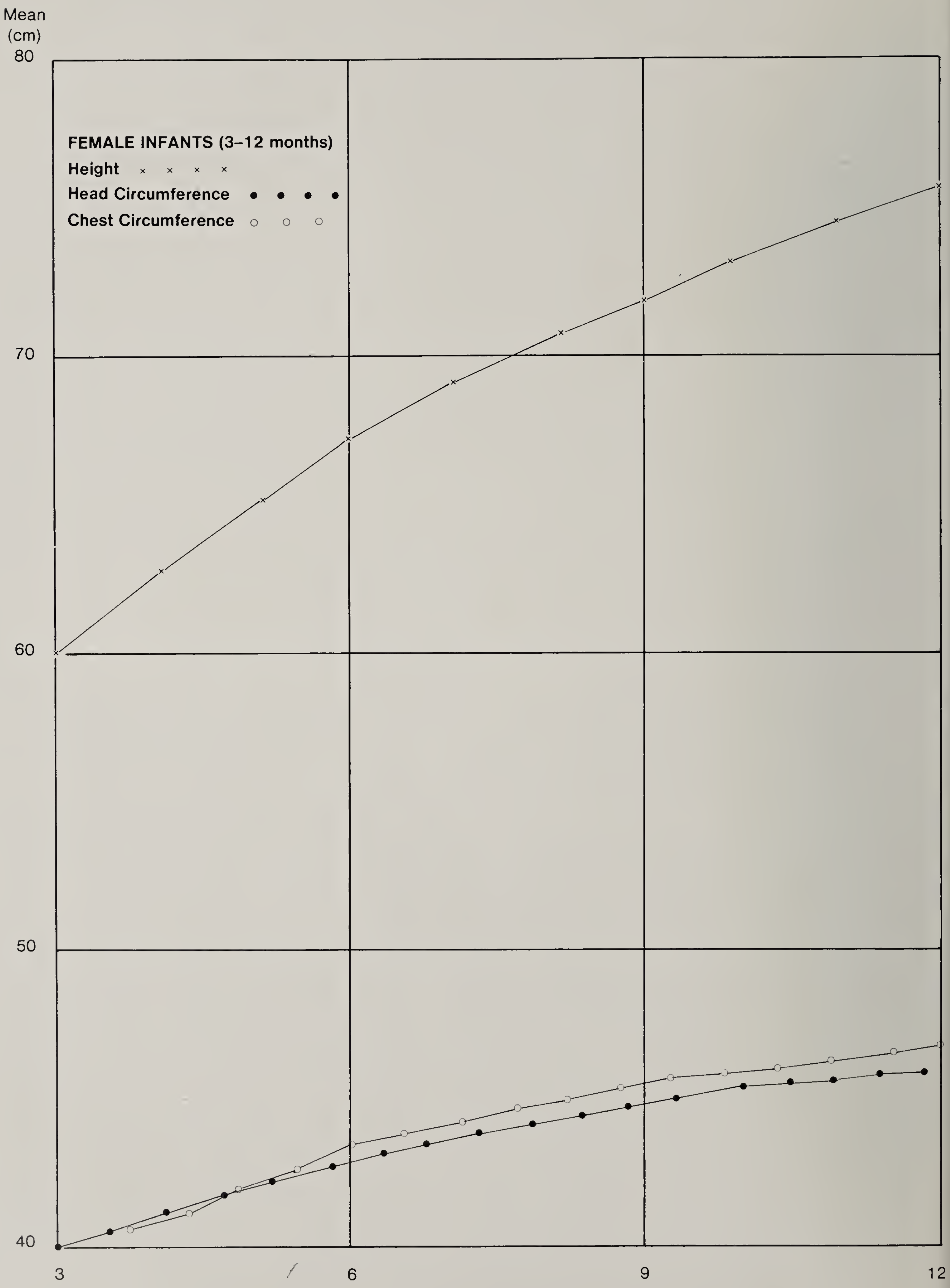
MATERNAL MORTALITY RATES FOR EACH STATE AND TERRITORY OF AUSTRALIA FOR THE YEAR 1981

——	Maternal Deaths	Live Births	Rate (per 1 000 Births)
Australia	25	235 842	0.106
New South Wales	11	81 530	0.135
Victoria	4	59 513	0.067
Queensland	3	38 834	0.077
South Australia	. .	19 351	. .
Western Australia	5	21 877	0.229
Tasmania	. .	7 188	. .
Northern Territory	2	3 080	0.649
Australian Capital Territory	. .	4 469	. .

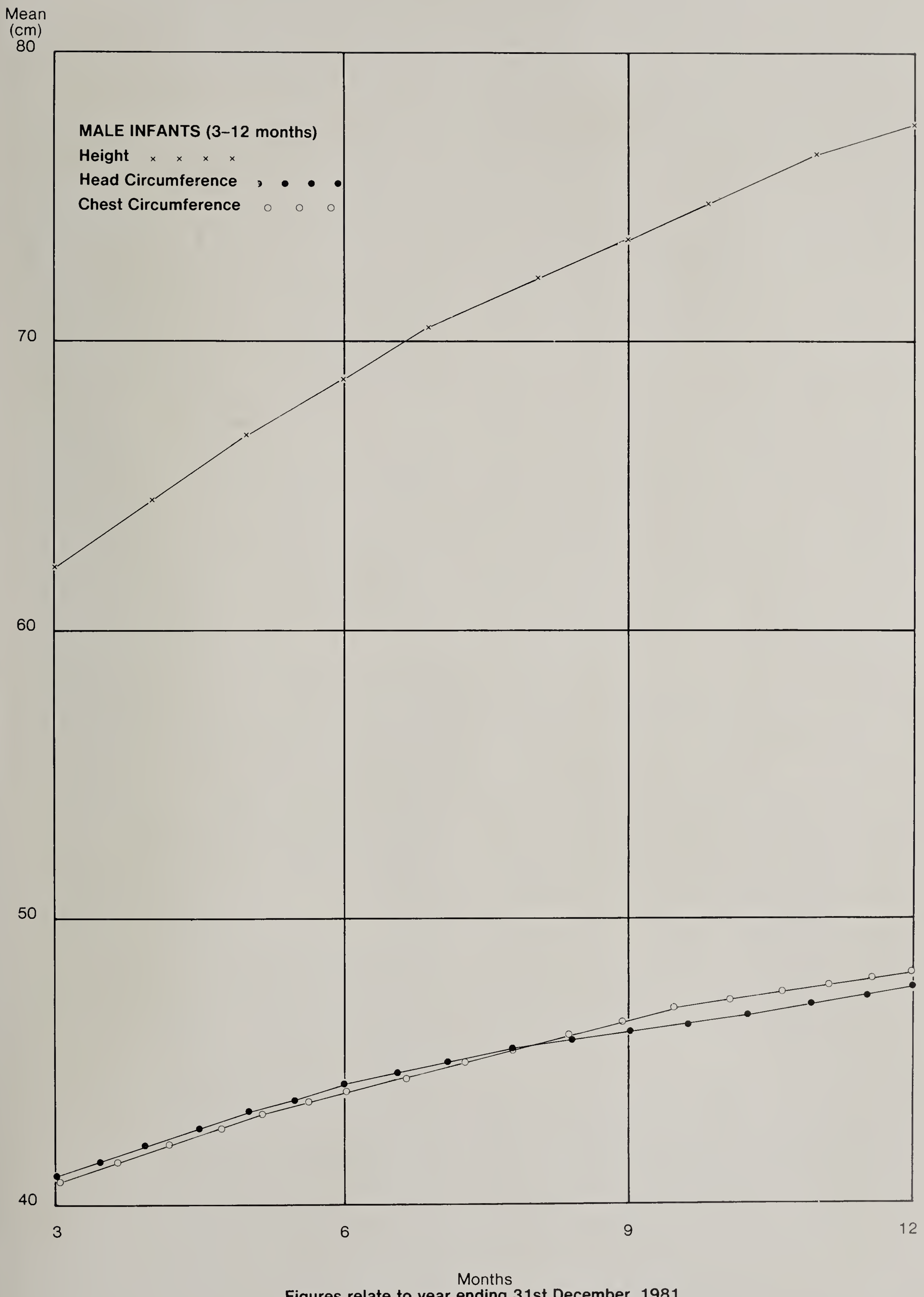
A COMPARISON OF MATERNAL MORTALITY QUEENSLAND AND AUSTRALIA

Year	Maternal Deaths ICD 630–676		Maternal Mortality Rate*	
	Queensland	Australia	Queensland	Australia
1911	98	615	5.77	5.03
1921	108	643	5.31	4.72
1931	108	650	6.06	5.48
1941	92	490	4.28	3.64
1951	35	203	1.18	1.05
1961	28	108	0.76	0.45
1962	23	83	0.64	0.33
1963	9	64	0.25	0.27
1964	10	75	0.29	0.33
1965	10	74	0.30	0.33
1966	13	66	0.40	0.29
1967	9	53	0.26	0.23
1968	11	69	0.31	0.28
1969	8	44	0.22	0,18
1970	8	66	0.21	0.26
1971	10	51	0.25	0.18
1972	6	33	0.15	0.12
1973	11	28	0.29	0.11
1974	7	28	0.18	0.11
1975	. .	13	. .	0.06
1976	5	30	0.14	0.13
1977	3	18	0.09	0.08
1978	4	15	0.12	0.07
1979	3	18	0·09	0.08
1980	4	22	0.11	0.10
1981	3*	25*	0.08*	0.11*

* Per 1 000 live births.



Figures relate to year ending 31st December, 1981



Figures relate to year ending 31st December, 1981.

PERINATAL MORTALITY COMMITTEE

Members: Dr P. G. Livingstone, Dr W. J. Carter, Dr J. Buckley, Mr V. McLean, Dr A. J. Ansford, Dr E. J. Esler, Dr I. Robertson, Dr G. Bourke, Dr D. Tudehope, Dr J. Campbell, Dr E. B. Bevan, Dr Grant, Dr J. Morrison, Dr R. Hemsley, Dr D. Buntine, Dr W. D. D. Cooke, Dr J. Thearle, Dr J. R. Tiernan, Dr B. Steinberg, Dr J. McFarlane (Secretary).

The perinatal mortality rate for 1981 was the lowest ever recorded in Queensland. (13.60 deaths per 1 000 live births). Since 1974 there has been a gradual fall in the rate and this has probably reflected the development of neonatal intensive care services in Brisbane. Three meetings of the Perinatal Mortality Committee were held during 1982-83 to discuss reports from peripheral hospital based committees, to seek ways of improving neo-natal transport services and neonatal care.

PERINATAL DEATHS—TIME OF CESSATION OF HEART-BEAT AND SEX—QUEENSLAND, 1981 AND 1982

Time of Cessation Heartbeat	Sex	1981		1982	
		Total	Rate*	Total	Rate*
Before Delivery—					
Before Labour Commenced ..	M	112	5.57	89	4.25
	F	63	3.37	73	3.72
During Labour	M	29	1.44	29	1.39
	F	33	1.76	21	1.07
Time not known	M	10	0.50	6	0.29
	F	6	0.32	7	0.36
Total	M	151	7.51	124	5.93
	F	102	5.45	101	5.15
After Delivery ..	M	160	7.95	156	7.45
	F	115	6.14	135	6.88
Total	M	311	15.46	280	13.38
	F	217	11.59	236	12.03
	P	528	13.60	516	12.73

* Per 1 000 live births.

PERINATAL DEATHS COMPARATIVE TOTALS AND RATES FOR 1973–1982

Year	Number			Rate*		
	Males	Females	Persons	Males	Females	Persons
1973	473	405	878	24.40	21.68	23.06
1974	465	381	846	23.72	20.88	22.35
1975	388	314	702	20.79	17.70	19.28
1976	371	339	710	20.61	19.67	20.15
1977	341	273	614	18.93	16.13	17.58
1978	308	269	577	17.33	16.11	16.74
1979	261	261	522	14.38	15.31	14.83
1980	283	236	519	15.67	13.95	14.84
1981	311	217	528	15.46	11.59	13.60
1982	280	236	516	11.28	12.03	12.73

* Per 1 000 live births.

MARRIAGES

Registration of marriages in 1982 numbered 18 928, compared with 18 305 in 1981. The rate per 1 000 mean resident population was 7.8 in both 1981 and 1982. A total of 547 persons aged under 18 (22 males and 525 females) and 6 975 aged 18 to 20 (1 803 males and 5 172 females) were married during 1982. The divorce rate for 1982 was 28.00 per 10 000 mean resident population, compared with the rate of 27.6 for 1981.

VITAL STATISTICS

Births registered in Queensland during 1982 numbered 40 540 compared with 38 834 in 1981. The rate per 1 000 mean resident population was 20.3 in 1972, 16.6 in 1981 and 16.8 in 1982. Of births registered during 1982 20 928 were males and 19 612 were females, equivalent to 106.7 males for every 100 females.

INFANTILE MORTALITY

Deaths of infants aged under one year numbered 432, comprising 237 males and 195 females, compared with 425 in 1981. The infant mortality rate was 10.7 deaths per 1 000 live births in 1982, compared with 10.9 in 1981. The rate for the different parts of the State were Brisbane Statistical Division 9.6 and other areas 11.5 per 1 000 live births. Deaths of infants within the first four weeks of life numbered 300 (161 males and 139 females), equivalent to 7.4 deaths per 1 000 live births.

DEATHS OF INFANTS UNDER ONE YEAR OF AGE FROM CONGENITAL ANOMALIES, 1980 AND 1981

Congenital Anomaly of—	I.C.D.* Code	1980		1981	
		M	F	M	F
Nervous System	740–742	7	11	14	13
Anencephalus and similar anomalies	740	4	2	6	7
Spina Bifida	741	2	4	3	1
with Hydrocephalus ..	7410	2	2	2	1
without mention of Hydrocephalus	7419	..	2	3	..
Congenital Hydrocephalus ..	7423	1	3	3	1
Other Anomalies	Rest of 740–742	..	2	2	4
Eye	743	..	..	..	..
Ear, Face and Neck	744	..	..	..	..
Heart	745–746	22	13	14	11
Common Truncus	7450	..	..	..	1
Transposition of Great Vessels	7451	..	2	..	3
Tetralogy of Fallot	7452	2	..	..	..
Common Ventricle	7453	..	..	1	..
Ventricular Septal Defect ..	7454	3	3	..	..
Ostium Secundum Type Atrial Septal Defect	7455	1	..	..	..
Anomalies of Heart Valves ..	7460–7466	1	..	..	..
Other Specified Anomalies ..	7456–7459 7467–7468	9	3	5	4
Unspecified Anomalies ..	7469	5	4	8	3
Circulatory System	747	3	5	7	4
Patient Ductus Arteriosus ..	7470	1	1	1	1
Coarctation of Aorta	7471	1	..	2	1
Other Anomalies of Aorta ..	7472	1	1	..	..
Anomalies of Pulmonary Artery	7473	..	2	1	2
Anomalies of Great Veins ..	7474	..	..	..	..
Absence of Hypoplasia of Umbilical Artery	7475	..	..	..	..
Other Anomalies of Peripheral Vascular System	7476	..	..	..	..
Other Specified Anomalies of Circulatory System	7478	..	..	1	..
Unspecified Anomalies ..	7479	..	1	2	1
Respiratory System	748	4	2	6	3
Upper Alimentary Tract and Digestive System	749–751	..	3	5	4
Cleft Palate and Cleft Lip ..	749	..	1	..	2
Pyloric Stenosis	7505	..	..	..	..
Tracheo-Oesophageal Fitsula, Oesophageal Atresia and .. Stenosis	7503	..	1	1	..
Other Anomalies of Upper Alimentary Tract	750 rem.	..	..	..	..
Gall-Bladder, Bile Ducts and Liver	7516	..	..	2	1
Other Anomalies of Digestive System	751 rem.	..	1	2	1
Genital Organs	752	..	..	..	..
Urinary System	753	2	..	3	..
Renal Agenesis and Dysgenesis	7530	1	..	5	..
Cystic Kidney Disease ..	7531	1	..	..	..
Obstructive Defects of Renal Pelvis and Ureter	7532	..	..	..	..
Exstrophy of Urinary Bladder	7535	..	..	..	..
Other Anomalies	753 rem.	..	..	..	..
Musculoskeletal System	754–756	2	4	4	8
Integument	757	..	..	..	..
Chromosome	758	1	6	4	6
Down's Syndrome	7580	1	2	..	3
Other Chromosomal Anomalies	758 rem.	..	4	4	3
Other and Unspecified Anomalies	759	8	4	8	3
Total	..	49	48	65	52

* Excluding muscoviscidosis.

ACCIDENTAL DEATHS OF CHILDREN (AGED 1 AND UNDER 15 YEARS)

——	1977		1978		1979		1980		1981		1982		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Traffc Accidents	38	13	22	28	26	24	23	21	29	18	38	18	298
Firearms ..	2	2	..	..	4	1	2	..	1	..	..	..	12
Drowning ..	16	9	18	9	11	11	16	10	15	6	19	6	146
Falls	3	..	1	1	1	..	2	..	2	1	1	..	12
Other Accidents	15	7	21	8	16	6	14	7	27	14	25	12	172
Totals ..	74	31	62	46	58	42	57	38	74	39	83	36	640
Total persons	105		108		100		95		113		119		640

Accidental deaths of children in this age group numbered 119 in 1982 compared with 113 in 1981 and an average of 119 in the 10 years 1973 to 1982 inclusive. In 1982 total deaths of children in this age group from all cases were 243 of which 49.0 per cent were caused by accident.

PERINATAL DEATHS—MAIN DISEASE OR CONDITION IN CHILD BY PERIOD OF GESTATION—QUEENSLAND

Main Disease or Condition in Child	Fetal Deaths									Neonatal Deaths									All Perinatal Deaths								
	Period of Gestation									Period of Gestation									Period of Gestation								
	Under 28 Weeks			28 Weeks and Over*			All Gestations			Under 28 Weeks			28 Weeks and Over*			All Gestations			Under 28 Weeks			28 Weeks and Over*			All Gestations		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
										1981																	
Slow fetal growth, fetal malnutrition and immaturity	11	9	20	3	4	7	14	13	27	31	19	50	4	2	6	35	21	56	42	28	70	7	6	13	49	34	83
Birth trauma	..	..	..	..	..	..	..	..	..	1	4	5	3	2	5	4	6	10	1	4	5	3	2	5	4	6	10
Hypoxia, birth asphyxia and other respiratory conditions	9	4	13	47	23	70	56	27	83	16	7	23	28	22	50	44	29	73	25	11	36	75	45	120	100	56	156
Fetal and neonatal haemorrhage	1	..	1	2	..	2	3	..	3	5	3	8	6	2	8	11	5	16	6	3	9	8	2	10	14	5	19
Haemolytic disease of fetus or newborn	1	..	1	2	..	2	3	..	3	1	..	1	1	..	1	2	..	2	2	..	2	3	..	3	5	..	5
Other conditions originating in the perinatal period	6	8	14	56	40	96	62	48	110	1	2	3	4	10	14	5	12	17	7	10	17	60	50	110	67	60	127
Congenital anomalies	2	1	3	11	13	24	13	14	27	1	..	1	49	36	85	50	36	86	3	1	4	60	49	109	63	50	113
Infectious and parasitic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	..	1	1	..	1	1
All other diseases or conditions	..	..	..	..	..	..	..	..	..	..	..	..	9	5	14	9	5	14	..	..	..	9	5	14	9	5	14
Totals	30	22	52	121	80	201	151	102	253	56	35	91	104	80	184	160	115	275	86	57	143	225	160	385	311	217	528
										1982																	
Slow fetal growth, fetal malnutrition and immaturity	7	6	13	5	4	9	12	10	22	21	20	41	2	1	3	23	21	44	28	26	54	7	5	12	35	31	66
Birth trauma	..	..	..	..	..	..	..	..	..	..	1	1	6	5	11	6	6	12	..	1	1	6	5	11	6	6	12
Hypoxia, birth asphyxia and other respiratory conditions	5	4	9	37	29	66	42	33	75	13	12	25	21	13	34	34	25	59	18	16	34	58	42	100	76	58	134
Fetal and neonatal haemorrhage	..	..	..	2	3	5	2	3	5	7	4	11	14	5	19	21	9	30	7	4	11	16	8	24	23	12	35
Haemolytic disease of fetus or newborn	..	..	..	..	1	1	..	1	1	..	..	..	3	..	3	3	..	3	..	..	..	3	1	4	3	1	4
Other conditions originating in the perinatal period	11	3	14	46	30	76	57	33	90	3	5	8	8	9	17	11	14	25	14	8	22	54	39	93	68	47	115
Congenital anomalies	2	2	4	9	19	28	11	21	32	1	..	1	48	50	98	49	50	99	3	2	5	57	69	126	60	71	131
Infectious and parasitic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	2	2	..	..	..	..	2	2	..	2	2
All other diseases or conditions	..	..	..	..	..	..	..	..	..	..	..	..	9	8	17	9	8	17	..	..	..	9	8	17	9	8	17
Totals	25	15	40	99	86	185	124	101	225	45	42	87	111	93	204	156	135	291	70	57	127	210	179	389	280	236	516

* Including deaths for which period of gestation was not stated 11 male and 1 female perinatal deaths in 1981 and 10 male and 7 female perinatal deaths in 1982.

See notes to table on page 13.

PERINATAL DEATHS*—MAIN DISEASE OR CONDITION IN CHILD BY STATISTICAL DIVISION OF USUAL RESIDENCE OF MOTHER

Main Disease or Condition in Child	Brisbane		Moreton		Wide Bay		Darling Downs		South-Western		Fitzroy		Central Western		Mackay		Northern		Far-North		North-Western		Queensland	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Males	Females
1981																								
Slow fetal growth, fetal malnutrition and immaturity	21	16	4	2	8	5	1	2	..	..	3	1	..	..	2	4	6	..	3	3	1	1	49	34
Birth trauma	2	6	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	4	6
Hypoxia, birth asphyxia and other respiratory conditions	42	22	14	10	3	3	4	1	4	2	11	3	1	..	1	2	8	7	10	3	2	3	100	56
Fetal and neonatal haemorrhage	4	2	2	1	4	..	1	1	1	..	..	..	..	..	..	1	1	..	1	..	..	..	14	5
Haemolytic disease of fetus or newborn	2	..	4	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	5	..
Other conditions originating in the perinatal period	31	31	5	4	5	4	1	2	3	..	6	1	..	2	5	2	4	7	5	6	2	1	67	60
Congenital anomalies	29	29	9	2	4	5	6	3	..	..	5	2	..	..	1	6	4	1	4	2	1	..	63	50
Infections and parasitic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
All other diseases and conditions	5	2	..	..	2	1	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	9	5
Totals	136	108	36	19	26	18	15	10	8	2	27	7	1	2	9	15	23	15	23	15	7	6	311	217
Rate per 1 000 Births (Live and Still)	14.10		12.52		17.56		8.18		17.45		12.27		11.45		13.17		13.57		13.92		14.91		13.51	
1982																								
Slow fetal growth, fetal malnutrition and immaturity	12	14	7	..	2	1	1	..	..	1	2	4	..	1	..	4	3	1	7	3	1	2	35	31
Birth trauma	2	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	1	2	2	..	6	6
Hypoxia, birth asphyxia and other respiratory conditions	37	31	10	4	2	5	4	2	..	..	4	4	..	1	3	2	12	5	2	3	2	1	76	58
Fetal and neonatal haemorrhage	7	9	1	..	3	..	1	..	..	1	4	1	..	..	1	1	1	..	2	..	3	..	23	12
Haemolytic disease of fetus or newborn	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	3	1
Other conditions originating in the perinatal period	22	18	4	5	7	5	2	1	1	1	7	4	1	1	5	..	9	4	7	6	3	2	68	47
Congenital anomalies	23	35	5	9	5	3	5	7	1	2	1	4	..	1	5	2	4	6	8	2	3	..	60	71
Infectious and parasitic diseases	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2
All other diseases and conditions	1	3	1	..	2	..	2	..	1	1	1	1	..	..	..	..	1	2	..	1	..	..	9	8
Totals	105	112	29	18	21	14	15	12	3	6	19	18	1	4	14	9	31	19	28	19	14	5	280	236
Rate per 1 000 Births (Live and Still)	11.85		9.64		13.75		9.05		15.36		13.29		19.16		11.72		17.37		17.30		21.97		12.66	

See notes to table on page 13.

PERINATAL DEATHS—MAIN DISEASE OR CONDITION IN CHILD BY MAIN MATERNAL CONDITION AFFECTING CHILD—QUEENSLAND

Main Disease or Condition in Child	Main Maternal Condition Affecting Child: Possibly unrelated to present pregnancy				Complications of pregnancy				Complications of placenta, cord and membranes				Other complications of labour and delivery				No condition reported				Total			
	Fetal		Neonatal		Fetal		Neonatal		Fetal		Neonatal		Fetal		Neonatal		Fetal		Neonatal		Fetal		Neonatal	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1981																								
Slow fetal growth, fetal malnutrition and immaturity	1	..	2	1	5	4	19	12	6	7	12	7	1	2	..	..	1	..	2	1	14	13	35	21
Birth trauma	..	..	..	..	..	..	1	3	..	..	1	1	..	..	..	..	..	..	2	2	..	..	4	6
Hypoxia, birth asphyxia and other respiratory conditions	3	3	3	3	2	..	11	6	39	19	8	6	..	1	..	..	12	4	22	14	56	27	44	29
Fetal and neonatal haemorrhage	..	..	2	..	..	..	..	2	3	..	3	1	..	..	..	..	..	..	6	2	3	..	11	5
Haemolytic disease of fetus or newborn	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	2	..	3	..	2	..
Other conditions originating in the perinatal period	6	5	1	1	2	2	2	1	33	24	..	..	1	..	..	..	20	17	2	10	62	48	5	12
Congenital anomalies	..	1	1	..	..	..	2	1	..	1	1	1	1	..	..	1	12	12	46	33	13	14	50	36
Infectious and parasitic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
All other diseases and conditions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	5	..	..	9	5
Total	10	9	9	5	9	6	35	25	81	51	25	16	3	3	..	1	48	33	91	68	151	102	160	115
1982																								
Slow fetal growth, fetal malnutrition and immaturity	3	1	3	..	3	4	13	13	6	5	6	7	..	..	1	1	..	..	..	..	12	10	23	21
Birth trauma	..	..	..	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..	5	3	..	..	6	6
Hypoxia, birth asphyxia and other respiratory conditions	2	3	6	4	1	..	13	8	28	16	4	5	2	2	1	1	9	12	10	7	42	33	34	25
Fetal and neonatal haemorrhage	..	..	..	1	..	..	6	4	1	2	2	1	..	..	2	..	1	1	11	3	2	3	21	9
Haemolytic disease of fetus or newborn	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	1	3	..
Other conditions originating in the perinatal period	6	2	1	3	4	..	4	6	29	20	..	1	..	..	..	..	18	11	6	4	57	33	11	14
Congenital anomalies	..	..	1	..	..	3	8	3	1	1	1	1	..	..	..	..	10	17	39	46	11	21	49	50
Infectious and parasitic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2
All other diseases and conditions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	8	..	..	9	8
Total	11	6	11	10	8	7	45	35	65	44	13	15	2	2	4	2	38	42	83	73	124	101	156	135

Notes:

1. The statistics have been compiled from perinatal death certificates designed to elicit the underlying cause of death of the child rather than to elicit the main condition in the child and mother. Because of this and the fact that certain judgments of the available information had to be made in order to compile the statistics on the new basis, the resultant statistics on disease or condition cannot be considered entirely satisfactory.
2. Cases of indeterminate sex are included with males (comprising two fetal deaths in 1981 and one fetal and two neonatal deaths in 1982).
3. Perinatal deaths include all fetuses and neonates delivered weighing at least 500 grams or, when birth weight is unavailable, the corresponding gestational age of 22 weeks. Neonates dying at 28 days after birth or later are excluded.

SCHOOL HEALTH SERVICES

Assistant Director: V. M. O'HARA, M.B., B.S.(Syd.), B.Sc.

Medical Officers: Dr R. FITZHARDINGE, M.B., B.S.(Syd.)—Brisbane
Dr J. WAGNER, M.B., B.S.(Syd.)—Brisbane
Dr K. MURPHY, M.B., B.S.(W.A.)—Brisbane
Dr J HUDSON, M.B., B.S. (Q'ld)—Brisbane
Dr J. HOOPER, M.B., B.S.(Q'ld)—South West Region
Dr L. O'BRIEN, M.B., B.S.(Syd.), D.T.M.&H(Liverpool)—Central Region
Dr D. SPRANGEMEYER, M.B., B.S.(Lond.), M.R.C.S.(Eng.), L.R.C.P.(Lond.)—Northern Region

Principal School Health Nurse: Miss P. W. HIGGINS, Dip.App.Sc.(Comm. Nursing)

The aim of School Health Services is to ensure that all children reach their full potential to gain the maximum from their education. The objectives are to ensure that physical, emotional, social and educational problems are detected early so that remedial action can be taken.

School Health Services is in no way attempting to supplant the family doctor, but the School Sisters examined apparently normal healthy children in the main, and still the percentage of unsuspected defects remains high:—5 per cent in State Pre-school children and 7 per cent in Year I Children.

While the discussion of the work carried out by staff of School Health Services covers the 1982–83 financial year, it is to be noted that all the data presented are for the calendar year 1982. Presented in this way, the findings in a single cohort of children are collated rather than a combination of two cohorts. This also assists in the presentation of this report as new School Health policies have always been implemented at the beginning of an academic year rather than a financial year.

The year 1982 was regarded as a Transition Year to allow a smooth changeover in target years to be accomplished, i.e. to change the emphasis to the Pre-school child (4–5-year-old) rather than the 5–6-year-old. In order to minimize the number of children who could be disadvantaged by this change, it was decided to examine vision and hearing only in State Pre-schools and Year I children. This accounts for the high percentage of children seen in these years compared with former years.

STAFF

There have been a number of staff changes during the year. The most notable were the retirements of Miss Von McWalters after 21 years, and Mrs Cath Sherwood after 12 years' service in the Division.

Other Sisters who resigned during the year were Mrs J. Elliott (Townsville); Miss C. Howe (Longreach); Miss C. McMillan (Inala).

Transfers within the Health Department meant we were sorry to lose Mrs M. Timmers; Miss S. Crompton; and Mr L. McDade, all from the office staff.

New members of staff are as follows:—

School Health Sisters—
A. McDonald—reappointed
P. Armstrong
P. Rawstron
F. Zerner
B. Bonding
L. O'Brien
J. Bell
P. Wikman
S. Sakrewski
M. Readman
D. Barnett

Office Staff—
M. De Sousa
A. Bosel
M. Clare

Sister Margaret Petersen has been on sick leave for almost the entire year.

DEVELOPMENT OF STAFF SKILLS

1. Medical Officers

All School Medical Officers are now expert in administering the Griffiths Mental Developmental Scales, and as a consequence are carrying out more full developmental assessments than formerly.

Informal lunch time meetings with a guest with expertise in a particular area of child health continued throughout the year.

2. Nurses

Professional development of the nursing staff continues as the changing trends in childhood morbidity manifest themselves. During the school vacation periods, the opportunity is taken to increase knowledge in the area of child health.

To this end our library facilities and audio-visual presentations are readily available to all staff throughout the State.

Monthly staff meetings were conducted for the Brisbane Metropolitan Sisters, and formal talks are always taped for distribution around the State.

Many Sisters attend lectures and workshops in their own time; e.g. Sister V. Crisp spoke at a Seminar on "The Child and the Broken Home." A Seminar in Mackay on "Emotional problems in Children" was attended out of hours by the two Sisters.

A formal orientation programme was held early in 1983 for nine newly appointed School Health Sisters, and this programme was also attended by three (3) Maternal and Child Health Sisters.

Impedance audiometry is gradually being taught to the Sisters to allow them a better opportunity to seek out hearing impairment, as it is well known that the pure-tone audiometers miss some hearing problems.

Since the beginning of March, 1983, there has been a concentrated effort to teach all the Sisters developmental screening techniques.

LECTURES GIVEN BY STAFF

All School Medical Officers, the Principal School Health Nurse and many of the School Sisters are involved in giving talks and lectures to groups within the Health Department and to other groups who are interested in the health and well-being of children.

Many School Sisters now give talks to Year VII girls as well as to Mother Groups and Parents and Citizens Groups.

SPECIAL ACTIVITIES DURING THE YEAR

1. Liaison with the Education Department

Numerous meetings with Senior Officers of the various Divisions of the Education Department have been held throughout the year, to our mutual satisfaction. Dr V. O'Hara chaired a series of meetings on "Guidelines for Teachers on the Administration of Medication to Children in Schools". She is also the Health Department's Representative on the Advisory Council for Special Education. A weekly meeting over a period of 12 months was attended by Dr O'Hara investigating Human Relationships Courses for school children.

A series of colloquia were begun with staff from the Division of Special Education and the Medical Officers of School Health Services to discuss matters of common interest.

2. Therapists Working in Schools

Various Advisory Committees of the Inter-Departmental Standing Committee on Health, Education and Welfare have prepared papers on Guidelines for Referral to Therapists which have been approved and are operating.

3. Medical Students and School Health Services

Final year medical students attached to the Mater Children's Hospital continue to attend School Health sessions at the West End Infants School and the Coorparoo State School. As well as being very informative for the students in that they are examining apparently normal healthy children, it also educates the students about the philosophy, aims and objectives of School Health Services. They are supervised by a Senior Lecturer in Child Health, University of Queensland, or one of the School Medical Officers.

4. Developmental Assessment by School Medical Officers

As predicted last year, School Medical Officers are having more children than formerly referred to them for full neuro-developmental assessment. These assessments have not been included in the data presented towards the end of this report. On an average, each Medical Officer takes approximately 2 hours to carry out this assessment which includes obtaining a full history from the mother, carrying out a detailed medical examination, doing a developmental assessment, and discussing the results with the parent. Each School Medical Officer carried out approximately 120 of these assessments during the year, i.e. 840 children were so assessed.

5. Developmental Screening Project by School Sisters

The pilot project carried out last year indicated quite definitely that there was a need for the School Sisters to learn developmental screening procedures.

This was a major decision, and after a literature search, and personal communication with other States, a progressive programme was introduced early in 1983 to give the staff more in-depth knowledge in the area of child development. This programme is under constant evaluation.

6. School Vacation Clinics

Vacation Clinics were held at four (4) schools and at three (3) offices during the Christmas Vacation. Most were well attended.

NUMBER OF CHILDREN SEEN AND NOTIFIED AT VACATION CLINICS

Centre	Number Examined	Number Notified
Calamvale State School	98	16
Harrisfields State School	209	23
Rochedale South State School . .	93	10
Kuraby State School	159	17
Caboolture Office	73	2
Nambour Office	6	1
Townsville Office	17	8
Total	655	77

Thus, 11.8 per cent of those who attended School Health Vacation Clinics were found in need of further investigation by their own general practitioner.

7. Regional and Local Co-ordinating Committees on Health, Education and Welfare

While the Inter-Departmental Standing Committee on Health, Education and Welfare and its attendant Advisory Committees have met during the year, Regional and District (or Local) Co-ordinating Committees on Health, Education and Welfare have gradually been established. These meetings at both levels involve the School Medical Officers.

8. Pacific School Games

These were held between 29th August and 2nd September, 1982, and had an estimated number of 2 000 competitors and 12 000 spectators. This included both the swimming events at the Chandler Aquatic Complex and the athletics at the QEII Jubilee Sports Stadium.

Four of the School Medical Officers and six of the School Sisters were on duty throughout the Games.

9. Working Party on Data Collection

A Working Party consisting of two School Medical Officers and one School Sister and staff from the Central Statistics Unit of the Health Department have been meeting at quite regular intervals over the past 2 years to review methods of data collection and record keeping procedures and to develop new systems which will enhance computer storage of information, and provide a measure to gauge the success of our service. A new system has now been developed, and it is anticipated the first results will be available for the calendar year 1984.

ROUTINE SCHOOL HEALTH ACTIVITIES

State Pre-school Children

The data set out in all the following tables is that collated for the calendar year 1982. As mentioned previously, this was a Transition Year, and the children had only their vision and hearing tested routinely. Other suspected problems were naturally investigated on referral.

The following table summarizes our activities in the State Pre-schools during 1982:—

STATE PRE-SCHOOL EXAMINATIONS AND DEFECTS NOTIFIED

Calendar Year 1982

Particulars	Metro-politan	Country	Total
Total Enrolment	9 418	16 062	25 480
Enrolment of State Pre-schools Visited	8 567	14 677	23 244
Children Examined	*	*	22 746
Children with Defects Notified	448	716	1 164
Percentage of Children with Defects Notified	*	*	5.1%
Defects Notified—			
Defective Vision	203	299	502
Squints and Other Eye Defects	33	51	84
Hearing Loss	201	379	580
Groin and Scrotal Conditions	5	5	10
Orthopaedic Conditions . .	2	3	5
Obesity	1	7	8
Speech	24	48	72
Total Defects Notified . .	469	792	1 261

* Data unavailable in time for publication.

A total of 97.85 per cent of the children enrolled at the State Pre-schools visited had their vision and hearing tested. This means that only 2 734 children enrolled missed out on the screening.

Even though the policy was to routinely screen vision and hearing, it is interesting to note that 72 children (0.3%) were referred for speech problems and a few for groin and scrotal conditions, orthopaedic conditions and obesity. In sum, 5.1 per cent of the children examined in State Pre-schools had an unsuspected physical defect. If one adds the number of squints and other eye defects to the number detected with defective vision, a total of 2.5 per cent had an unsuspected vision defect. Hearing loss, which is a very common intermittent problem in this age group, was found in 2.5 per cent of those examined also.

Primary School Children

Examination of Primary School Children

The data presented are for the calendar year 1982, and as this was regarded as a Transition Year to enable a smooth change in policy from the beginning of 1983, the aim was to screen as many of the Year I children for vision and hearing problems as possible. The children in Years II–VII were seen on request of the teachers, Guidance Officers, parents, therapists, etc. Year VII children were routinely screened for scoliosis and colour vision defects (boys only).

As can be seen in the accompanying table, 83 per cent of the Year I children were examined; and 79 per cent of the Year VII children.

COVERAGE OF PRIMARY SCHOOL CHILDREN
Calendar Year 1982

Particulars	Metropolitan	Country	Total
Primary School Enrolments—			
Year I	16 468	24 703	41 171
Year VII	18 007	27 012	45 019
Other (II–VI)	83 251	125 133	208 384
All Schools	117 726	176 848	294 574
Total Enrolment of Schools Visited	102 126	175 078	277 204
Children Examined by School Sisters—			
Year I	12 871	21 269	34 140
Year VII	13 740	21 793	35 533
Other Years—			
On Request	5 063	8 269	13 332
Review	4 630	5 806	10 436
Other	846	3 357	4 203
Total Children Examined by School Sisters	37 150	60 494	97 644
School Medical Officer Examinations	2 069	682	2 751
Children Examined as a Percenage of Children Enrolled in all Schools			
Year I	78%	86%	83%
Year VII	76%	80%	79%
Other Years (II–VI)	12.5%	14%	13.5%
All Years	31.5%	34%	33%

The total number of 9 296 more primary school children were examined by the School Sisters during this time, due no doubt to the restricted screening procedures imposed on them. This high number is not expected to continue as the developmental screening programme is introduced.

The number of requests, reviews and other examinations remains approximately the same as in previous years.

Details of suspected physical defects notified in respect of these Primary school children are shown in the following table:—

SUSPECTED DEFECTS NOTIFIED IN PRIMARY SCHOOL STUDENTS
Calendar Year 1982

Particulars	Metropolitan	Country	Total
Children Examined	37 150	60 494	97 644
Children with Defects Notified	3 336	3 772	7 108
Percentage of Children with Defects Notified	8.97%	6.23%	7.27%
Defects Notified—			
Defective Vision	895	1 332	2 227
Squints and Other Eye Defects	126	196	322
Hearing Loss	661	1 071	1 732
Groin and Scrotal Conditions	38	25	63
Spinal Defects	1 393	1 021	2 414
Orthopaedic Conditions	13	34	47
Obesity	108	81	189
Colour Vision	296	449	745
Speech Defects	103	119	222
Skin Problems	25	53	78
Heart Murmur	6	50	56
Short Stature	26	22	48
Dysphonia	25	7	32
Enuresis	5	10	15
Nasal Obstruction	2	7	9
Dental Problems	..	9	9
Pallor	..	2	2
Enlarged Glands	1	2	3
Others	71	55	126
Total Defects Notified	3 794	4 545	8 339

A total of 7.3 per cent of those examined were found to have an unsuspected physical defect which was referred to the family doctor for further investigation and for treatment. This compares with 7.5 per cent last year.

If the number of children with unsuspected defective vision and squints and other eye defects are combined, then a total of 2.6 per cent of all those examined were referred for further investigation. Using the same methods of calculation, 2.4 per cent of the children examined were referred for suspected scoliosis, but it is almost certain that the 2 414 children so referred were from Year VII, which gives a percentage of 6.8 which conforms with figures elsewhere in the world with similar screening programmes.

A persistent figure each year is the 1.8 per cent who were referred for investigation for a hearing loss.

"Special Programme" Schools

Three School Health Sisters are employed in a temporary capacity, funded by the Schools Commission to conduct School Health Practice in 10 State Primary Schools in Brisbane. These were formerly classed as Disadvantaged schools, but are now known as "Special Programme" schools.

While the hard data pertaining to their work does not differ greatly from the other Sisters, they spend a greater proportion of their time liaising between home and school; contacting various agencies which can be of assistance to the families; interviewing parents at the school, often through interpreters; following up the children with health problems more rigorously than other Sisters; arranging appointments for them at one of the children's hospitals if they have no private practitioner, etc. These Sisters are able to do a lot more to help the children and their families, and the children are seen more regularly throughout the year. Each Sister has less than 3 000 children enrolled in her schools, and this is believed to be the ideal ratio.

Special School Children

This section of the report will discuss the examinations and findings of children attending Special Schools, Special Units in regular schools, Special Pre-Schools and the schools for the Multiple Handicapped.

Examinations of Special School Children

New admissions to Special Schools are fully examined if there is no record of such an examination in the previous year. Only vision and hearing screening is carried out if there is evidence of a previous full examination.

The 11 year age group is examined as in Year VII in regular schools, i.e. forward bending test for scoliosis and colour vision testing of boys only.

DETAILS OF EXAMINATIONS AND DEFECTS NOTIFIED IN SPECIAL SCHOOL CHILDREN
Calendar Year 1982

Particulars	Metropolitan	Country	Total
Total Enrolment	2 335	2 564	4 899
Children Examined	917	834	1 751
Children with Defects Notified	95	63	158
Percentage with Defects Notified	10.3%	7.5%	9%
Defects Notified—			
Defective Vision	24	28	52
Squints and Other Eye Defects	1	8	9
Hearing Loss	27	27	54
Spinal Defects	36	5	41
Colour Vision	1	5	6
Hernia	2	..	2
Obesity	4	2	6
Other	8	..	8
Total Defects Notified	103	75	178

The findings in special school children continue to emphasize the importance of visiting the Special Schools and Units yearly. Unfortunately, only 35.7 per cent of the children attending were examined by the School Sisters. Compared to the number of unsuspected physical defects found in children attending regular schools, the number found in special school children continues to be much higher; e.g. 3.4 per cent of the children had unsuspected vision problems compared to 2.6 per cent in children in regular schools; and 3 per cent had unsuspected hearing impairment compared to 1.8 per cent in the regular schools.

Early Education Intervention Programmes

The proliferation of Early Educational Intervention Programmes throughout the State involves the School Medical Officers, where they carry out a liaison role between the teachers, parents and the child's own paediatrician. There is also involvement in ensuring the children attending the programmes are regularly medically reviewed.

A lot of time is also spent with parents in informal discussion about the child's medical condition and the dynamics revolving around the child, his condition and his family.

School Medical Officers involvement with Multiple Handicapped Children

The Education Department's policy of integration and commitment to the least restrictive environment has meant that more children with handicaps attend regular schools. Also, more severely handicapped children are increasingly being enrolled in special schools. This means the School Medical Officers are more involved with the handicapped whichever school they attend. The two schools for the multiple handicapped in Brisbane are visited weekly by a School Medical Officer, and the one in Townsville likewise.

The proliferation of Early Educational Intervention Programmes throughout the State also means involvement for the School Medical Officers.

These special schools are not usually visited by School Sisters, and therefore the numbers of these children seen by the Medical Officers are not recorded with the Sister's data in this report.

State High School Students

Examinations of State High School Students

School Sisters visited 29 State High Schools during the year out of a total of 217. Thus, most High Schools were not visited. Sisters visited on a regular basis—either weekly, fortnightly or monthly depending on other commitments.

Sisters see the students on a consultative basis only, so that routine screening is not carried out at all. The source of referral of the students to the Sisters is shown in the following table:—

SOURCE OF REFERRALS OF HIGH SCHOOL STUDENTS TO SCHOOL SISTERS
Calendar Year 1982

Referred by	Metropolitan	Country	Total
School Principal	2	572	574
Senior Mistress	14	185	199
Class Teacher	15	49	64
Physical Education Teacher	..	4	4
Guidance Officer	2	7	9
Aboriginal Community Education Counsellors	..	2	2
School Counsellor	..	..	..
Remedial Teachers	..	..	..
Parents	7	17	24
Self	81	293	374
Advisory Teacher for the Hearing Impaired	..	5	5
Total	121	1 134	1 255

It is thus shown that some of the country School Sisters appear to have more time to visit the State High Schools on a regular basis than the Brisbane Metropolitan Sisters.

The majority of referrals were made by the school principals in the Country High Schools which contrasts markedly from last year, when the students mostly referred themselves. Enquiries are to be made into this change. One suspects that some of the Principals referred whole classes of students to the Sister for screening.

The next table shows a break-up of the reasons for referral and the outcome. The figures are broken up into males and females; country and metropolitan.

REASON FOR REFERRAL OF HIGH SCHOOL STUDENTS TO SCHOOLS SISTERS AND OUTCOME
Calendar Year 1982

Condition	Metropolitan		Country		Total	Notified
	Boys	Girls	Boys	Girls		
Vision	4	56	301	531	892	77
Hearing	4	23	159	403	589	35
Acne	3	..	1	8	12	1
Other Skin Conditions	..	7	3	14	24	4
Abdominal Pain	..	..	3	1	4	..
First Aid	..	..	4	6	10	..
Menstrual Problems	..	2	..	19	21	2
Height	..	..	3	6	9	2
Overweight	..	2	1	7	10	1
Underweight	..	..	..	6	6	2
Development	..	3	2	4	9	1
Headaches	..	..	17	31	48	..
School Problems	..	17	1	5	23	2
Family Problems	1	2	8	18	29	11
Personal Problems	1	6	3	11	21	1
Smoking	..	..	1	..	1	..
Alcohol	..	..	1	..	1	..
Other	2	21	..	..	23	4
Total	15	139	508	1,070	1,732	143

It is to be noted that quite a few students had more than one reason for referral.

Thus, 8.2 per cent of all students seen at State High Schools were referred on for further investigation and/or treatment.

Once again many more girls were referred than boys. The total number of referrals was higher than last year (1 732 compared with 1 226 last year).

CONTACTS WITH PARENTS

In keeping with the policy of having as much contact as possible with the parents, the School Sisters have recorded an increasing number of parent interviews at school, or by telephone. Parents who are unable to be visited in the home, or contacted in any other way, are often written to requesting additional information, etc.

Details of School Sisters' contacts with parents, State-wide, at all levels of education are shown in the following table. It does not include routine notifications for suspected defects.

SCHOOL SISTERS CONTACTS WITH PARENTS
Calendar Year 1982

Particulars	Metropolitan	Country	Total
Home Visits	224	469	693
Interviewed at School	3 563	3 074	6 637
Telephone	1 809	1 422	3 231
Letter	1 219	894	2 113
Total	6 815	5 859	12 674

There were 2 544 additional contacts with parents during this period compared to last year, the majority being due to an increase in the number of interviews being conducted at the schools.

REFERRALS TO OTHER AGENCIES

The policy of School Health Services has always been to notify parents when unsuspected defects are found. It is then up to them to take the child to their own general practitioner, paediatrician or the local Hospital.

It sometimes happens that during discussion of a problem it becomes obvious that another agency could benefit the child—an agency that in no way usurps the role of the medical practitioner. These referrals to other agencies are often done in conjunction with the general practitioner.

Details of referrals to other Agencies during the 1982 Calendar Year are shown in the following table:—

REFERRALS TO OTHER AGENCIES
Calendar Year 1982

Agency	Metro-politan	Country	Total
Aboriginal Health	24	100	124
Children's Services	16	25	41
Division of Community Medicine	13	54	67
Division of Youth Welfare and Guidance	22	12	34
Guidance and Special Education	50	67	117
National Acoustic Laboratory	72	60	132
Royal Queensland Bush Childrens Health Scheme ..	1	33	34
Social Worker	27	5	32
Speech Therapist	13	11	24
School Health Consultative Clinic	45	65	110
Other	122	40	162
Total	405	472	877

MEDICAL EXAMINATION UNIT

Teachers-in-Training

Teachers-in-Training and graduands continue to have their medical examinations conducted at this Unit. Only 1 053 were examined in the 1982 calendar year and of these 19 were called for review; 42 referred for specialist opinion; 10 referred to the National Acoustic Laboratory and one to a speech therapist.

A total of 560 graduands were examined for superannuation purposes, of whom two were referred for further opinion.

The number of teachers in training examined in the Provincial Centres were not available in time for publication.

Most Friday afternoons School Sisters make themselves available in their office for appointments, and many of these are for audiometric examinations of teachers who are medically examined by Government Medical Officers. In the country areas of the State 471 such tests were carried out, and in the Brisbane peripheral centres 57 teachers were so tested.

School Health Consultative Clinics

One session a week is held at the Unit for consultative purposes only. A paediatric endocrinologist attends and sees children referred by School Medical Officers. No treatment is carried out, but the results of the consultations are always referred on to the child's own medical practitioner for further investigation and treatment.

A total of 45 new referrals were seen and there were three reviews. The children referred are mainly exhibiting short stature, tall stature for age or obesity. Many apparently normal healthy children have in this way been found to require investigation and treatment.

Hearing Assessment Clinics

Two School Medical Officers continue to hold weekly clinics for children suspected of having hearing impairment.

The following table shows the sources of referral to the Hearing Assessment Clinics:—

SOURCE OF REFERRAL TO HEARING ASSESSMENT CLINICS
Calendar Year 1982

Referred by	Number
Teachers	29
Guidance Officers	20
E.N.T. Specialists	5
General Practitioners ..	35
Parents	63
School Sisters	21
Total	173

A total of 173 children were fully examined at these Clinics and 18 of these were subsequently reviewed. The number referred for treatment was 42 (21.9 per cent) and the number referred for further investigation by the National Acoustic Laboratory was 13.

IMMUNIZATION

From the history cards completed by the parents of the Year 1 children, a record is obtained of the immunization status of the children. It is recognized that these figures cannot be regarded as accurate but with the same difficulties encountered each year it is an indication of the immune status of the school population.

IMMUNIZATION HISTORY OF YEAR I CHILDREN
Calendar Year 1982

Particulars	Children	Children who have been Immunized		
		Triple Antigen	Diphtheria and Tetanus	Polio/Sabin
Metropolitan	19 632	17 096	13 089	15 909
Country ..	32 837	28 521	20 633	26 787
Total	52 469	45 617	33 722	42 696
Percentage of Total ..	..	86.9%	64.2%	81.3%

DIVISION OF PSYCHIATRIC SERVICES

Director of Psychiatric Services: G. S. URQUHART, M.B., B.S., F.R.A.N.Z.C.P., D.P.M.

Deputy Director of Psychiatric Services: P. MULHOLLAND, M.B., B.S., F.R.A.N.Z.C.P., D.P.M.

Chief Psychologist: R. M. D. BROWN, B.Sc., Ph.D., M.A.P.S.

Senior Social Worker: K. J. BEDWELL, B.S.W.

Executive Officer: E. F. NORRIS, L.H.A., M.I.A.A. (to 15th September, 1982) (Appointed Manager, Princess Alexandra Hospital)
K. YARKER, L.H.A. (from 16th September, 1982)

Administration Officer: G. T. MURRAY

MENTAL HEALTH LEGISLATION

On 22nd March, 1983, the Honourable the Minister for Health introduced into Parliament the Mental Health Act and Criminal Code Amendment Bill.

This Bill brought to conclusion a major task by Officers of the Division. A great deal of consultation had taken place, and a major contribution to that Bill was made by the Solicitor-General and his Officers.

In introducing the Bill, the Minister intimated that because of the nature of the legislation, he regarded it as not being a political Bill, but one which should be subject to public scrutiny, and as a result, the legislation would lie on the Table of the Parliament until the next Session of Parliament. In the interim, Parliament has been prorogued.

As a result of the Minister's action, he has received an enthusiastic response, and the comments and suggestions received from both individuals and organizations have been warmly received and are in the process of thorough consideration.

The Bill seeks to achieve several objectives. The first is to more clearly distinguish between the intellectually handicapped and the mentally ill, and while preserving the rights of the intellectually handicapped when involved in criminal proceedings, the services for the mentally ill and the intellectually handicapped are clearly differentiated.

The Bill also provides for statutory review of all patients compulsorily detained beyond 3 weeks. This review will be conducted by a Patient Review Tribunal, constituted by a District Court Judge and four other members.

This Tribunal will replace the present appeal tribunal that responds only to appeals made by compulsorily detained patients, and although this procedure will greatly increase the workload of the professional staff caring for such persons, it will also guarantee to individual patients and the public alike, an assurance that no patient will remain compulsorily detained unless that patient requires such care for his own welfare or for the protection of others.

Another important provision is to ensure that where compulsory action is sought by persons other than relatives or authorized persons, the person, the subject of the application, will be assessed by a medical practitioner and a Designated Authorized Person prior to admission to compulsory inpatient care.

The most important amendment is designed to remove from mental health legislation the notion of indeterminate detention of those involved in criminal proceedings. The concept of detention at Her Majesty's pleasure is to be replaced by a judicial determination. To this end, the Bill creates a Mental Health Tribunal constituted by a Supreme Court Judge and assisted by two psychiatrists.

This Tribunal will determine the question of criminal responsibility and the detention of the person, if necessary, will be subject to statutory periodic review by the Patient Review Tribunal. This provides not only a judicial finding in such cases, but provides a finding which will be appealable to the Court of Criminal Appeal.

OVERSEAS STUDY TOUR—DIRECTOR OF PSYCHIATRIC SERVICES

As a result of the Director's overseas study tour, a report has been submitted and that report deals specifically with mental health legislation, the role of modern Psychiatric Hospitals, the care of the chronically mentally ill, the treatment and care of the severely acutely mentally ill and forensic services.

Further to the report, a series of recommendations have been made, some of which have already been acted upon. Probably the most important of these is the concept of mental health centres and the effective provision for community support services for discharged patients.

OVERSEAS STUDY TOUR—CHIEF PSYCHOLOGIST

Dr R. M. D. Brown, Chief Psychologist of the Division, is presently overseas visiting North America, Great Britain and Europe.

The objectives of his study tour are fourfold and include the appropriate professional development of psychologists throughout the Department of Health, the development of appropriate in-service training programmes for psychologists, the regulation and licensing of psychologists and the control of fringe practitioners, and the recruitment of appropriately qualified overseas trained and experienced clinical psychologists.

COMMUNITY SUPPORT SERVICE

While overseas, the Director examined the nature of the services for the chronically mentally ill.

The problems in North America are enormous, but are the object of very important programmes. In Great Britain and in Holland, changes are being made to these services.

This is a field of development in most of the countries visited, and the needs within this State are very great. To this end, interim support groups commenced and although they could be rightly described as rudimentary, they have the potential for development, and it is anticipated that in the coming year, effective services in the Metropolitan area will be developed rapidly.

This will be accomplished by an increased staff establishment made available by the redeployment of staff from inpatient services.

OTHER DEVELOPMENTS

Approval has been given for the establishment of a comprehensive Mental Health Centre on the Gold Coast. A total of 19 staff will be employed, and this Centre will be responsible for acute treatment services at outpatient level and as an alternative to inpatient care.

Associated with the treatment service will be a partial hospitalization service by the creation of a Day Hospital.

There will be a further component responsible for community support services in that area.

Services to South-West Queensland on a regional basis have been approved and will be developed to extend the services available to General Hospitals and Community Health Centres throughout the whole of South-West Queensland.

It is anticipated that early in the new year, additional staff will be made available for this purpose.

WOLSTON PARK HOSPITAL

Acting Medical Superintendent: Dr J. F. WOOD, M.B., Ch.B., D.P.M., F.R.A.N.Z.C.P., M.R.C.Psych.

ORGANIZATIONAL CHANGES

The remodelling and refurbishing of wards Noble House A and C into the new Nurses Training School commenced on 1st June, 1983. This will provide an education centre for the training of student nurses and also an in-service training facility for all staff disciplines. Provision will also be made for the establishment of an audio-visual library within the training centre.

Following renovations to wards C and D of the Barrett Psychiatry Complex, the Barrett Adolescent Centre was officially opened on 1st June, 1983, by the Honourable the Minister for Health, Mr B. D. Austin. The Centre will provide inpatient, outpatient, and day services for adolescents suffering from psychiatric disturbances.

With the gradual transfer of intellectually handicapped residents from Wolston Park Hospital to Intellectual Handicap Services, Anderson House was closed for patient accommodation on 25th January, 1983, and Dawson House A closed on 28th February, 1983.

Lewis House C was closed to patient accommodation on 8th October, 1982, at which time the patient population of that ward was accommodated in other Hospital wards.

With the reoccupation of Wacol Repatriation Ward A, Noble House A was closed to patient accommodation from 13th September, 1982.

The current inpatient population of the Wolston Park Hospital Complex was reduced to below 800 patients at the close of the 1982–1983 year. During the year there was an overall reduction of 92 in the patient numbers.

The position of Senior Paramedical Officer, Wolston Park Hospital has been created and was filled on 23rd June, 1983, by Ms A. Campbell.

The former Medical Superintendent of Wolston Park Hospital, Dr V. L. Matchett, retired on 23rd July, 1982, after 14 years of distinguished service to the Hospital.

During July and August, 1982, considerable industrial unrest resulted from campaigns for the introduction of a 38-hour working week causing inconvenience and disruption to the efficient functioning of the Hospital.

The medical staff at Wolston Park Hospital has been increased during the 1982–1983 financial year providing an additional Senior Psychiatrist, two Medical Officers and a Rotating Registrar. This addition to the medical staff has proved invaluable to the treatment provided to patients.

The Community Preparation Unit ceased to function as a discrete Unit in February, 1983, and the responsibility for this programme has been assumed by the Psychiatric Treatment Unit. The Community Preparation Unit was established with the goal of de-institutionalizing chronic long stay psychiatric patients, enabling their eventual return to community living. During its 2 years of operation, the Unit prepared and discharged approximately 200 chronic psychiatric patients.

The Psychiatric Rehabilitation Unit ceased to function as a separate facility on 29th May, 1983. The central functioning and responsibility of this Unit was gradually transferred to other clinic Units during May, 1983.

With the introduction of Programme Nurses to clinical Units, social and rehabilitative training areas have been established at a Unit level, enabling more specific patient-oriented programme development.

The official magazine of Wolston Park Hospital, the Colony Times, celebrated its 25th Anniversary on 6th June, 1983.

The Hospital Executive hosted a celebratory morning tea for the editor, Miss Cumming and assistant Mrs Lee. The Colony Times has provided both staff and patients with comprehensive and interesting reading throughout its 25 years of operation. Representatives from the Division of Psychiatric Services attended the function.

A new medication chart was introduced on a trial basis in December, 1982, following preliminary development through a pilot study within the Medical Centre. The new chart was officially introduced throughout the Hospital Complex in March, 1983.

Frozen food was fully introduced throughout the Hospital in October, 1982.

Squibb Week-end

This annual event, sponsored by Squibb Pharmaceutical Company for membership to the Australian and New Zealand College of Psychiatrists, was held at Wolston Park Hospital from 16th to 17th April, 1983. The week-end was well attended by candidates from Queensland and other States and by members of the Board of Censors. Speakers were drawn from Australia and overseas.

Training of Registrars and Undergraduates

The 1983 clinical examinations for entry to the R.A.N.Z.C.P. were held for the first time at Wolston Park Hospital and Barrett Psychiatry Centre in May, 1983.

UNITS REPORTS

Barrett Psychiatry Centre

The Centre provides an acute inpatient and outpatient psychiatric service to the West Moreton region, Brisbane western suburbs and Gold Coast.

The bed state of the Centre has been consolidated from 96 to 80 during the 1982–83 year, and the admission ward has been converted from closed to open ward accommodation.

Treatment programmes are designed and implemented by a multi-disciplinary team comprising psychiatrists, psychiatric registrars, resident medical officers, nursing staff, social workers and social work associates, psychologists and occupational thereapists.

Psychiatric Treatment Unit

The Psychiatric Treatment Unit functions as a 145-bed active therapeutic and rehabilitative Unit for those patients referred from regional and acute psychiatric facilities for longer term treatment (6 months and over).

The Unit orientation is concerned with reintegrating patients, appropriately and following treatment, into the community. This Unit has a primary function as the admission facility for patients excluding psychogeriatrics, for the Wolston Park Hospital.

A multi-disciplinary team approach is provided with input conjointly by nursing and medical staff, social workers, speech pathologist, recreation officer, psychologists and occupational therapists.

The Unit offers a broad-based combination of individualized, ward and Unit provided programmes incorporating chemotherapy, individual counselling and therapy, assertive and interactional skill development, family and group work, behavioural programming and recreational, rehabilitative and independent living functions. Commitment through on-going programming is to improved quality of life and level of functioning of the individual both within the Unit and the community.

Throughout the preceding year, there have been significant organizational changes in ward allocation and utilization, therapeutic orientation and the development of a Unit-based rehabilitation programme which have resulted in improved patient care.

The Unit continues to provide intensive therapy for patients whose psychiatric condition requires close supervision and management in a closed setting.

The Neuro-Psychiatric Unit continues to fulfil a research and teaching function for undergraduate and postgraduate medical students and staff.

Psychiatric Care Unit

This is a 200-bed Unit for patients requiring long-term hospitalization.

The priorities of treatment and improvement of inpatient life with progression to community placement are met by "individualized treatment plans" for each resident, formulated and delivered by a multi-disciplinary team consisting of medical, behavioural science and nursing staff.

With the closure of the Psychiatric Rehabilitation Unit and subsequent transfer of activity to this unit, the Old Hospital Ward has become an additional building for rehabilitative purposes.

BAILLIE HENDERSON HOSPITAL

Medical Superintendent: J. M. RIDLEY, M.B., M.R.C.S., D.Obst., D.P.M., M.R.C.Psych., F.R.A.N.Z.C.P.

OVERVIEW OF HOSPITAL/SERVICE ACTIVITIES

The service for the Darling Downs and South-West Queensland has developed in an integrated way with the emphasis on treatment being in the community, the admission areas of Baillie Henderson Hospital and the Psychiatric Unit of Toowoomba General Hospital. Rehabilitation has become the main feature of the Baillie Henderson Hospital. Planning is continuing for the establishment of an adult psychiatric day hospital in Toowoomba and necessary alterations to the Philharmonic Hall will start as soon as the lease between the Health Department and Toowoomba City Council is signed.

The split in the admission of patients between the Toowoomba General Hospital Unit and Baillie Henderson Hospital, whilst cumbersome in some ways, allows those patients not requiring special facilities or staffing to be treated at Toowoomba General Hospital, whilst others needing a better staffing input and more suitable environment are admitted to Baillie Henderson Hospital. This allows our Trainee Psychiatrists to work in a General Hospital setting, be involved in liaison psychiatry and our student nurses to have experience of acute psychiatry. The filling of the psychiatrist positions during this year has been of enormous benefit in enabling extensions of our services. Construction has commenced on the rehabilitation/recreation centre which will provide a valuable extension of services.

CLINICAL/THERAPEUTIC ACTIVITIES

A. Admission Unit (Gowrie Hall)

This service now has a full clinical team, having an Occupational Therapist, Psychologist and Social Worker joining this year. In addition to those psychiatric admissions transferred from Toowoomba General Hospital, the unit admits all psychiatric patients requiring in-patient treatment from the Darling Downs and South-West Queensland; all female patients from central and north Queensland, who after assessment by a psychiatrist are thought to require over three (3) months treatment and all male patients from central Queensland who after assessment are thought to need over three (3) months treatment. A number of Section 50 patients from the Security Patients' Hospital have also been admitted during the year as well as transfers from Wilson Youth Hospital. The method of intensive care nursing in a pleasant and bright security area continues to be successful so that seclusion is virtually never used and restraint, not at all.

B. Rehabilitation Unit

This Unit has been augmented during the last year by a "half-way flat" for patients entering the community and by the Whishaw Day Centre which caters for ex-patients of Baillie Henderson Hospital with chronic disability as a result of their mental illness or else recurring psychiatric illness. It is well attended and the focus is on increased self-motivation and stronger ties with the Toowoomba Community.

C. Psychogeriatric Unit

This service continues to thrive and plays a most important part in screening so that only appropriate elderly are admitted to the Hospital. The agreement with relatives for 6 weeks assessment and treatment keeps relatives in touch and also enables maximum use of beds. Respite beds are offered to help relatives continue with care. The day hospital for the elderly in the city is the focus of the service. Education on problems of the elderly is offered to nurses, nursing homes and other interested groups. The nurses in the post-graduate nursing course at Princess Alexandra Hospital spend one week in our service, as part of their course.

Total attendances at the Day Hospital in 1982 were 1 930.

D. Alcoholic Unit

This is one of the units in the Hospital which is increasing in size (8 per cent over the last year). It consists of the medium stay rehabilitation unit at Bedford Street from which many patients attend the K.B.H. Sheltered Workshop and the long-term unit in Browne House in which more low-key programmes operate due to the severe memory deficits of the patients.

E. Young Disabled Unit

This Unit has expanded during the year, developing a token economy programme to extinguish the undesirable behaviour patterns occurring in those with brain injury. The patients are mostly motor vehicle accident or horse riding accident victims. The need for such a unit and the value of the service is evidenced by the State-wide and even inter-State referrals. Patients come from Mount Isa, Townsville and Brisbane as well as local people, and requests have been received to take into the Unit, three young people from Tasmania.

This service has been extended during the year to an area for long-term young disabled who formerly found themselves residents of nursing homes surrounded by elderly patients.

F. Forensic Service

The Forensic Service operates as an independent unit serviced like the other units by a multidisciplinary team under the guidance of the Deputy Director of Psychiatric Services who visited on a monthly basis.

G. Intellectual Handicap Unit

The training and normalization programmes have continued and further residents have been discharged to appropriate supervised accommodation during the year. Two wards in the area operate a closed roster system of staffing at the request of the staff. This has led to reduced sick days, and a constant ward staff which in turn has greatly benefited the residents. A closer liaison has been developed with the Intellectual Handicap Services in Toowoomba. In May, four (4) crisis beds were allocated to the Intellectual Handicap Service in Digby House as Intellectual Handicap Services were unable to place intellectually handicapped persons at short notice. The Intellectual Handicap Service also admits patients to Tredgold, but the residents there remain a heterogeneous group which makes suitable programming difficult.

H. The Toowoomba General Hospital Psychiatric Unit

The psychologist's room, staff toilet and proposed television room for the patients were annexed by the Hospitals Board and converted into an isolation unit for M.R.S.A. patients. Periodically staff are diverted to perform general nursing duties in the isolation area. The patients continue to use a verandah as a television room. Improvements to the building include a new roof and carpeting of some areas as well as external painting. In-patient admissions for the year = 433. Average daily occupancy = 20. Liaison Consultation Requests = 281. Total out-patient attendances = 2 504.

I. The Rural Psychiatric Service

This Service is flourishing, and the multidisciplinary team now visit Dalby, Warwick, Stanthorpe and Roma on a regular basis, providing a consultative and educational service as well as a direct treatment service. Three hundred and ninety-three patients have been seen at 53 clinics this year.

STAFFING

A.

The psychiatrist positions are now filled and there are three full-time psychiatrists in addition to the Medical Superintendent and Deputy Medical Superintendent. Another psychiatrist is working eight sessions weekly and three private psychiatrists work one session per fortnight each. There are five medical officers training in psychiatry, with two expected to attempt M.R.A.N.Z.C. Psych. next year, and one part-time medical officer.

B. Paramedical

Senior Paramedical Officer
Three Psychologists
Senior Occupational Therapist and three Occupational Therapists plus one part-time Occupational Therapist
Senior Social Worker and three Social Workers plus one part-time Social Worker, plus one Social Work Associate
Four Recreation Officers
One Teacher and one Teacher's Aide
One Physiotherapist
One Pharmacist. A pharmacist has been recommended for the second position.

Psychogeriatric Unit

Accommodation for 214 male and female psychogeriatric patients is provided by the three wards of this Unit. The wards include Ellerton House (of 126 beds for rehabilitative and/or nursing home type care); Gladstone House (of 44 beds for new admissions and patients exhibiting more florid psychiatric symptomatology) and Jenner House (of 44 beds for those with higher physical dependency needs). Patients within the Unit are aged 60 years or over except for some presenile patients who have qualified for admission.

The Psychogeriatric Unit provides patients with the services of medical officers, medical registrars, nursing staff, occupational therapists, physiotherapists, psychiatrists, psychologists and social workers. The aim of this multidisciplinary team is the enhancement of the patients' quality of life by assessment of each patient's individual needs and endeavouring in all ways to meet those needs, whether behavioural, physical, psychological, rehabilitative, social or spiritual.

A significant improvement this year has been the establishment of a Day Activities Centre within the Unit. A group of patients from Ellerton House began attending the Centre from Monday 17th January, 1983, and, with involvement of both Gladstone and Jenner House patients, the attendance has increased to approximately 50 per day, Monday to Friday.

Intellectual Handicap Unit

This Unit provides a multi-disciplinary defined therapeutic programme for 75 intellectually handicapped residents.

The gradual transfer of these residents to the responsibility of the Intellectual Handicap Services continues.

Treatment staff comprises general practitioner, psychologists, occupational therapist, physiotherapist, social work associate and nursing staff.

The intensive training programme centred in Bostock House which aimed at preparing selected residents for transfer to I.H.S. Alternate Living Service successfully concluded in February, 1983. Follow-up reviews indicate successful consolidation and maintenance of skills learned by the residents now in community settings.

Following discharges from the Unit, two wards were closed. Subsequent rationalisation of Unit staffing has enabled the implementation of a change in organizational structure and the introduction of modular nursing.

This system of modular nursing was introduced on 1st March, 1983, the 45 residents in Dawson House B being divided into five modules, ranging from six to 16 residents per module. Assistant Nurses are rostered to each discrete module, and module nurses are encouraged to individualize treatment and develop basic living and social skills of the residents.

Medical Treatment and Rehabilitation Unit

This Unit provides both inpatient and outpatient facilities for the residents of Wolston Park Hospital and Barrett Psychiatry Centre. The Medical Centre is a 40-bed ward for the treatment of acutely physically ill patients. Care is delivered by a multi-disciplinary team of health professionals including doctors, nurses, physiotherapists and social worker.

Allied services are provided by a radiographer, pathologists, pharmacists and dentists. Other resource personnel are psychiatrist, anaesthetist, speech therapist and E.C.G./E.E.G. technician.

A consultant medical officer conducts the General Practice Service on an outpatient basis for residents from all wards of the Hospital, meeting their physical needs specifically and ensuring an "holistic" approach to their overall care.

Visiting Specialists cover such areas as surgery, orthopaedics, gynaecology, neurology, radiology, optometry and chiropody. Other services include Central Sterilizing Department, immunology, audio-visual and referrals to general hospitals.

Admissions from the Intellectual Handicap Service Centres and other Wolston Park Hospital wards are arranged to undergo dental treatment under anaesthetic. During the 12 months, 13 patients have been discharge from the the Medical Centre to nursing homes or into the community. The Medical Centre is working on almost 100 per cent occupancy of beds.

Professional Development Unit

The Unit is responsible for the development and expansion of professional skills of all groups of treatment staff. The Professional Development Unit provides an orientation programme for new staff to the Hospital, and co-ordinates in-service training for non-clinical staff working in contact with patients.

This Unit is responsible for the training of student nurses to the standards of the registration authority. This year, two 3-year courses and two 18-month post-basic courses were commenced.

In-service training continues for various disciplines including psychologists and occupational therapists.

The Unit co-ordinates and recommends to the Executive attendance by staff at outside seminars, courses, lectures and workshops.

Prior to the opening of the Barrett Adolescent Centre, a specific course designed for the provision of skills required for adolescent psychiatry was delivered to staff allocated to that Centre.

The annual Nurses Graduation Ceremony was held at Wolston Park Hospital on 4th March, 1983. Thirty-five nurses graduated this year. The guest speaker at the ceremony was Mrs M. Hankinson, who was then the Assistant Advisor in Nursing.

In line with recommendations from the Board of Nursing Studies, the development of the use of nursing care plans for each patient has been instituted. Several workshops on the use of such plans were held and the full implementation of the plans should occur by mid-August, 1983.

Barrett Adolescent Unit

This Unit is presently functioning as a day centre providing a service to six clients on an outpatient basis. These clients are currently involved in an educational programme.

The Unit when fully functional will provide inpatient facilities for 24 clients and will be staffed by a multidisciplinary team involving psychiatrist, nurses, psychologist, child guidance therapists and teachers.

The Unit will cater for the adolescent who is emotionally/psychiatrically disturbed to the extent that inpatient care is required. Services offered will include individual therapy, family therapy and group therapy together with an educational component which will permit the clients to maintain their normal educational standard. An alternate living skills programme is being developed for those adolescents who have completed or have been exempted from school.

All staff within the Unit are involved in an on-going in-service training course, and it is anticipated that the inpatient section of this facility will open with the provision of the required nursing staff.

Wacol Repatriation Pavilion

The Wacol Pavilion of 90 beds is responsible for the care and treatment of patients with psychiatric conditions which have been accepted as being due to war service and which require longer term management than can be provided at Greenslopes Repatriation Hospital. The Unit works closely with the Psychiatric Section of the Department of Veterans' Affairs.

Renovations to Wacol Repatriation Pavilion A were completed in September, 1982, and Wacol Repatriation patients moved from Noble House A to occupy Pavilion A on 13th September, 1982. The refurbishing has provided a modern and comfortable environment for the patients and has resulted in an overall reduction of nine beds.

Clinical staff in the Pavilion comprise psychiatrists, medical officer, behavioural science and nursing staff.

Planning is presently in progress for the modernization and refurbishing of the kitchen cafeteria and canteen facility at the Pavilion.

MOSMAN HALL

Medical Superintendent: I. ATKINSON, M.B., B.S., D.P.M., M.R.A.N.Z.C.P. (from 1-7-82 to 27-5-83)

OVERVIEW OF HOSPITAL

Several processes have been developed over the last few years aimed at improving the Staff-Patient ratio. The bed numbers in both Dalrymple and Clarke Wards have been reduced, Clarke from 65 to 43 while Dalrymple has been reduced from 64 to 44. The 44 beds have been divided into a receiving ward of 23 beds and a 21-bed open ward aimed at rehabilitation of intellectually intact alcoholics.

Increased space for activities is available. In Dalrymple Ward, an ex 12-bed dormitory is used as a group therapy room. In Clarke Ward, a 12-bed and an 8-bed dormitory are being converted to amenities areas.

Macrossan Ward staff are being trained and are developing techniques concerning toilets, bed-making and eating habits along behavioural lines working with about 30 intellectually handicapped patients in the ward.

It is hoped the increased establishment for para-medicals will soon be filled and the programmes widened and strengthened.

Dr Bevan Cant has attended one (1) week per month to be available to discuss problems in developing the hospital staff techniques and attitudes.

In-service training sessions for Assistant Nurses have been conducted twice during the year.

Clinical and Therapeutic

This year the Hospital has been divided into specialized units for the treatment of residents. New and continued nursing programmes and activities have been introduced in these areas.

Dalrymple House

The Admission and Assessment Area has such programmes as Induction, Assessment, Group Therapy Counselling sessions, organized recreation and Occupational Therapy. Because of the slow response by some residents in the rehabilitation programme in other areas of the Hospital, rehabilitatory training programmes are also undertaken.

Dalrymple House (A)

The development of a Unit for Alcoholics last year has provided a service unique to North Queensland, and has received people from areas in the north of the State. With staff training and the development of new techniques, the Unit is providing a worthwhile service.

Macrossan House

Within this Unit an Education Programme for the intellectually handicapped has been planned and conducted. It includes such programmes as Behaviour Modification, Basic Living Skills, Awareness, Toilet Training and Socialization. Through these programmes, residents hope for rehabilitation back to their homes or the community residences for the intellectually handicapped conducted by the Intellectual Handicap Services Branch.

Clarke House

The psychogeriatric unit is functioning with programmes such as Orientation, Socialisation, Recreation, Occupational Therapy and Rehabilitation. The reduction in the number of residents from 65 to 43 has made it a more realistic unit to manage. A number of the residents have been rehabilitated and have proceeded to the Eventide Home for the Aged in Charters Towers. With the Social Service pension being received, the residents now have their own personal clothing and amenities, giving them a feeling of individuality and self-esteem.

Fraser House

This section of the Hospital has 45 residents, consisting mainly of people suffering from Chronic Brain Damage (Alcohol Related) and difficult Chronic Schizophrenias. These residents have programmes for Group Therapy, Recreation, Re-socialization, Orientation, Living Skills and Rehabilitation.

Community Preparation Programme Unit

This Unit caters for six (6) people who need special preparation before being rehabilitated to their homes or hostels. Teaching programmes in Hygiene, Budgeting, Cooking, Shopping, Orientation, Behaviour Modification and Re-socialization are conducted.

Gill House

This House is operated as the Occupational Therapy Unit and is still proving a valuable asset to the treatment of residents. Occupational Therapy activities play a vital part in the assessment of residents and produce many articles for sale to the community, thus providing an avenue for community awareness.

All areas of the Hospital are covered for clinical reviews and a Medical Officer is on call for any emergencies. The services of a Psychiatrist and a Psychologist are provided. A Social Worker is employed full-time and plays an important developmental role in the Dalrymple (A) Alcoholic Programme.

Staff education is provided by a Medical Officer for one week each month. Audio-visual equipment which was purchased by the Hospital Auxiliary is proving a valuable asset in programmes for the education of residents and staff. Two more Registered Nursing Staff attended the In-Service Course at Baillie Henderson this year and a series of lectures to Nursing Assistants was conducted and evaluated. It is proposed to continue with these courses, which have proved most beneficial. Both Registered and Assistant Nurses are taking part in Group Training Method sessions conducted at Mosman Hall.

Educational films, magazines and books assist with the education of staff.

Physical Environment

The only major construction this year was the connection of the Hospital to the town sewerage scheme. The installation of emergency lighting and the installation of wall heaters in all rooms have been completed.

Changes in Senior Staff

The services of Dr Atkinson, who retired this year, have not been lost completely. He has been retained on a sessional basis until a replacement is found.

A number of medical and paramedical positions have been created this year and applications are presently being processed. Their addition should prove invaluable to the work force of the Hospital.

PSYCHIATRY CLINIC, 30 MARY STREET

Psychiatrist-in-Charge: P. J. EDWARDS, M.B., B.S., F.R.A.N.Z.C.P., D.P.M.

OVERVIEW

The Clinic has continued to provide an outpatient service to the community for the complete range of adult psychiatric disorders. Medico-legal assessments have continued to be done for the Courts, Legal Aid Office, Public Defender's Office, Crown Prosecutor's Office and Parole Board and an assessment/treatment service is provided to the Probation and Parole Service and the Prisons Department.

STAFFING

There have been a significant number of changes to the staff during this year. There has been an overall reduction in sessions per week provided by part-time Medical Officers and Psychiatrists from 50 to 37. The bulk of the medical manpower is provided by part-time officers, there being only two full-time medical staff and eight part-time medical staff. A Specialist Psychiatrist is employed for three sessions a week in the area of forensic psychiatry.

C.

A second Hospital Chaplain, Sister Philippa has joined Sister Margaret, seconded by the Bishop of Toowoomba.

D. Nursing

Staff levels in wards have had to be reduced to allow for reclassifications of nursing positions for the community service. Application for re-establishment of the Deputy Principal Nurse position has been made as this position is considered vital in the developing and expanding services. During the year there were 60 retirements and resignations and 52 new staff.

Due to the method of managing disturbed patients and also the fact that the Hospital has been requested to accept (and accepted), a number of "problem patients" from other services (Security Patients' Hospital, Child Guidance and Children's Services), a very high number of hours nursing time has been used on a one to one basis—3 325 total hours (63.98 hours weekly).

Sick, Absent and Compensation Leave has again been reduced to 4 229 days, and it is hoped to reduce this still further.

Twelve nurses work in community areas and 4 517 visits were made during the year by liaison nurses.

E.

Throughout this year, various staff members attended a number of conferences and courses including programmes conducted by Management Services Branch. Participants appreciated the opportunity to attend, and it is considered that an improvement in role and performance has resulted.

There has been no increase in the overall number of staff employed throughout the past year, and the staff have continued to provide the necessary care and services to the highest possible degree. Careful consideration has also been given to the possible reallocation of vacant positions to result in improved care and services.

TRAINING

All five full-time medical officers are registered with the College Board of Accreditation, and are involved in a full teaching programme, provided by the full-time and part-time psychiatrists.

There are 83 nursing students.

During the year, 33 of 37 nursing students attempting State Final Examinations were successful.

In-service Training for senior nursing staff, including nurses for Mosman Hall, continues.

Toowoomba General Hospital Student Nurses have visited the Hospital and received input from our Nurse Educators.

Nurses from the post-basic course in geriatrics attend Baillie Henderson Hospital for one week's training.

Assistance is given to students from D.D.I.A.E. (Behavioural Science and Education).

One Educator conducted an in-service course at Mosman Hall for Assistant Nurses over a 6-week period.

PHYSICAL ENVIRONMENT

In March this year, final approval was given for the construction of an indoor recreational block (a major constructional development). The building will contain a recreation pool, gymnasium, hydrotherapy pool, physiotherapy unit, new bulk store and pharmacy. To make way for the new building, some very old buildings had to be demolished. It is anticipated that the new building should be completed about mid-1984.

The Hospital gardeners have continued to maintain the grounds and gardens to a high standard and a large number of new trees have been planted.

As required and where possible, the Hospital artisan staff have effected repairs and painting and they have carried out necessary maintenance of buildings and services.

Major works completed by the Department of Works throughout the year include internal and external painting of a number of wards and buildings, repair and re-roofing of the laundry building, replacement of floor coverings in various wards and the kitchen cafeteria and Central Nursing Office buildings, renewal of sewer mains and storm water drainage, repairs to and renewal of roofing and guttering of various wards and buildings, and the installation of evacuation and standby lighting and an emergency generator in the Gowrie Hall admission area.

MANAGERIAL AND ADMINISTRATION

The services provided by outside contractors, including cleaning, security services and pest control, have been very satisfactory.

Close liaison and co-operation has been maintained with local officers of the Department of Works, resulting in the maintenance of buildings and services, etc., being to a satisfactory standard.

During the year, students from various high schools in Toowoomba participated in work experience programmes in a number of areas in the Hospital. These programmes appeared to be successful and further participation will ensue.

Monthly visits have continued to be made during the year by the Official Visitors to the Hospital.

Complete introduction of frozen meals into the Resident's Cafeteria and Ward Kitchens was smoothly executed with complete co-operation from the Kitchen Staff and other involved staff. The reconstituted meals are of a high standard and they have been favourably received by the residents.

Fire safety equipment is fully maintained, and fire drill and exercises are carried out regularly; on some occasions in conjunction with exercises organized by the Toowoomba Fire Brigade.

The Canteen, which is under private tender, has operated successfully throughout the year and appears to have provided amply for residents and staff.

There have been no serious industrial problems throughout the year, and I feel that this has been the result of co-operation and regular liaison between local Union representatives and the Hospital Administration.

COMMUNITY RELATIONS

The important function this year was the formal launching of the Community Liaison Unit by the Minister for Health, the Honourable B. D. Austin, in May. This launching recognized the rapidly expanding and vital Community Liaison Unit. Not only have over 1 000 visitors been welcomed to the Hospital this year, but the number of volunteers has increased—both individual and group. The Unit carries out Orientation Courses for volunteers as well as supporting them. Volunteers work in all areas of the Hospital and also in the community service.

Education of the public continues through talks to community groups, charitable organizations and schools.

Mental Health Week was a very successful promotion, with many business people in Toowoomba being sponsors.

Cash raised at the Hospital Fete in October is contributing to "Search and Rescue" equipment (together with a donation of $2,500 from the Hospital Auxiliary).

The Volunteers End of Year function was again an enjoyable occasion for both staff and volunteers.

The Community Liaison Unit Co-ordinator is the President of the Toowoomba ACROD group and also liaises with other agencies—Karakan, Auxiliary, Lifeline, Church Groups and charitable organizations.

A comprehensive resource directory is being compiled.

The local T.V. station has made three "advertisements" on Baillie Henderson Hospital, depicting in a positive way the services offered. This is part of the station's community service project and is much appreciated.

The patients continue to have a close liaison with the community visiting local shows and other entertainments and also take holidays on the Gold and Sunshine Coasts.

Involvement with schools continues with visits and work experience students.

SUMMARY

Developments in the service as a whole at Baillie Henderson Hospital have gone ahead well and smoothly due to the hard work, enthusiasm and co-operation of all staff

With the recent transfer of staff to the newly formed Community Support Service for the chronically mentally ill and disabled, the nursing staff has been reduced to three, Social Workers to two, with one Social Work Associate.

The in-service training programmes for Psychologists and Welfare Officers conducted at Wolston Park Hospital, are continuing.

CLINICAL AND THERAPEUTIC ACTIVITIES

A Clinic Consultative Committee, with representation from each of the clinical teams and professional groups, has been in operation throughout the year.

All new cases presented at the Clinic are channelled through the clinical teams.

A team-based crisis service, functioning only within routine working hours, has operated throughout the year.

Despite limited resources, regular contact was established and maintained with residents of group homes and hostels.

Similarly, regular liaison/consultations were maintained with hostel supervisors and with staff of sheltered workshops and activity centres.

The forensic component continues to represent one-third of all new cases assessed at the Clinic.

STONES CORNER PSYCHIATRY CLINIC

Acting Psychiatrist-in-Charge: P. G. MITCHELL, M.B., B.S., D.P.M., M.R.A.N.Z.C.P.

OVERVIEW

The fiscal year has seen significant structual changes within the Clinic implemented with the aim of expanding community services. In practice, the transition to small teams of approximately four persons and the assumption of additional duties has proven to be more onerous than expected.

CLINICAL ACTIVITIES

These include:—

(1) Assessment of patients and referral to appropriate management facilities to maximize efficient usage of appropriate resources and minimize inappropriate multiple agency servicing;

(2) Treatment of patients with a range of techniques from psychotherapy to behavioural modification in an individual, family or group setting with or without the addition of psychopharmaceuticals;

(3) A Day Therapy Centre providing programmes in a group setting for people with a wide range of psychiatric morbidity; the emphasis is on maintenance, rehabilitation and resocialisation as is appropriate;

(4) Crisis service is available for use by personal or telephone contact;

(5) Consultative and liaison services to a variety of community persons and groups in the medical, social and welfare fields;

(6) Assessment, placement and management of people in residential settings together with provision of support to their caretaker;

(7) In-service training programmes for all clinical staff.

STAFFING

Medical Staff

The number of full-time medical staff remains at four—two Psychiatrists and two Medical Officers.

The number of Part-time Psychiatrists remains at one, with three 3-hour sessions per week being worked.

Welfare Officers

There are currently two Welfare Officers employed. One Welfare Officer is currently on Study Leave no pay.

Social Workers

Currently, one Social Worker is employed. Two other Social Workers were transferred to other areas within the division of Psychiatric Services.

Psychologists

The number of Psychologists employed remains at three.

Clerical

The number of Stenographers employed is three. One Clerk is employed at the Clinic.

STUDENT PLACEMENTS

Students have again attended for experience in an operational community psychiatric unit.

INTELLECTUAL HANDICAP SERVICES BRANCH

Director: R. N. SHEPHERD, B.A., Dip.Psych., M.A.P.S.

Deputy Director: J. M. C. WRIGHT, B.A.(Hons), M.A.

Human Resources Development Officer: J. C. STOLL, B.A., M.Soc.Wel.

Senior Community Liaison Officer: D. E. WALLACE, B.Occ.Thy., Dip.Soc.Pln.

Administration Officer: R. H. YOUNG

OVERVIEW

A number of major developments have occurred during the past 12 months. The most significant of these has been the publication of the White Paper and the subsequent establishment of a regional service model with the Branch.

The White Paper sets out the philosophy of the Branch, and its Goals and Objectives. It has attracted a great deal of favourable comment, not only from organizations, community groups and individuals within the State, but also from interstate and overseas.

The White Paper documents a changed organizational structure for the Branch, with a number of regional offices being established to deliver services.

This change in structure has operated during 1982–83 with regional offices in Townsville, Rockhampton, Maryborough, Toowoomba, Ipswich and Brisbane.

The regional service in Townsville is the newest service, being established in late 1982 after 3 years of careful planning and consultation with all relevant agencies and consumer groups.

This service, which consists of a resource and assessment centre and a short-term residential facility, has already met a large need of families with severely handicapped members. Documentation of future needs to allow services to be provided in the most cost-efficient manner possible, is also under way.

At the same time that the services for North Queensland were being planned, the services in Wide Bay-Burnett were administratively separated from those in Darling Downs and South-West Queensland.

Planning is under way for the Brisbane Service to be divided into a number of services, each covering a specific geographic area.

A significant development has been the tabling of the Intellectually Handicapped Citizens Bill. This Bill has been designed as enabling legislation to assist intellectually handicapped adults to exercise their rights and carry out their responsibilities in society in the least restrictive way. This is consistent with the major thrust of all development of services for the intellectually handicapped in Queensland in the past decade which has emphasized support to intellectually handicapped people living either with their family or in community-based living situations.

The purpose of tabling the Bill was to attract maximum public comment. This response has been achieved. The comments will be carefully considered in the process of further drafting of the Bill.

Other major activities of the Branch have been the continuing deinstitutionalization of intellectually handicapped residents of Wolston Park Hospital, the upgrading of training programmes in residentials, the introduction of a new record-keeping system, preparation for taking over the Sandgate Centre from the Division of Maternal and Child Health, development of a regionalized Information Resource Service, increased use of the Volunteers programme, revision of the Residential Care Officer course, manpower planning to allocate existing staffing resources in the most efficient manner within regions, production and distribution of a number of high quality videos for staff, families and volunteers, and participation in Interdepartmental Co-ordinating Activities.

This year has also been one of increasing demands for short- and long-term accommodation which has outstripped the resources of the Branch. Emergency measures to provide additional beds within the existing residentials, the planning for the opening of Sandgate Centre, co-operative planning with other agencies, investigation of new residential alternatives, and establishment of a co-ordinator of respite care services are but some of the steps taken to address the situation.

BRISBANE SERVICES

(Covering the Brisbane Metropolitan Area, Sunshine Coast and Gold Coast)

Superintendent: G. ROSS, M.Soc.Wk.

OVERVIEW

This year has seen a consolidation in the administration and management structures within the region with the development of a regional executive to support the work of the Superintendent.

Overall, there continues to be pressures from all areas to provide extra services. Basic community services are being maintained with changes in modes of service delivery. The area of most need at the moment is in both relief and long-term residential care.

CLINICAL/TRAINING ACTIVITIES

Children

The opening of the Townsville Service and the appointment of more staff to the Rockhampton Service has reduced pressure on the Brisbane Services. This has allowed a review of current service delivery which should improve both the quality and quantity of services with existing staff resources.

Services to children on the Gold Coast have been expanded.

Adults

An Adult Centre has been established at Taringa 3 days a week. Training Camps for adults have been held. The use of "The Outlook", a Children's Services facility at Boonah, as a venue for these programmes is appreciated.

Adult services have expanded during this year to include Sunshine Coast and Gold Coast areas. This has been accomplished through the provision of personnel from the Branch Community Liaison Unit (on the Sunshine Coast) and the re-allocation of personnel to the Gold Coast area.

Alternative Living Service

This service has again seen growth from five to eight houses in this financial year, giving accommodation to 37 intellectually handicapped adults.

Audiology Unit

Gradual refinement of techniques and the provision of a broader assessment service are the hallmarks of development of the Audiology Unit over the last 12 months. The Unit is currently pioneering Auditory Brainstem Evoked Response Audiometry (ABR) with intellectually handicapped persons not under general anaesthetic with a fair degree of success.

Family Education Unit

The Unit has been reduced in strength from four staff to two. This has forced a replanning of function which has brought the Unit much closer to the Brisbane Resource and Assessment Centre.

STAFFING

Staff Development

Inservice induction and training courses have been run using Staff Development personnel from throughout the Branch.

As well as internal courses, 3 officers have attended courses run by the Management Services Section of the Health Department.

Staff Establishments

The present establishment is 48 positions with an additional 31 Residential Care Officers and 2 Senior Residential staff seconded to the Alternative Living Service from Basil Stafford Training Centre's establishment.

COMMUNITY DEVELOPMENT ACTIVITIES

A Community Development and Liaison Unit has been commenced within the Brisbane Service with a brief to establish a planning and co-ordination function with other agencies and groups in the community.

An Information Resources Service has been established under this Unit in Brisbane and the Gold Coast with the assistance of two part-time staff.

PHYSICAL ENVIRONMENT

Structured Intervention Programme Centre

Rented premises were obtained this year for the running of a teaching programme for young handicapped children.

BASIL STAFFORD TRAINING CENTRE

Superintendent: R. JOACHIM, B.A., Dip.Psych., Grad.Dip.Mgmt.(C.C.A.E.)

OVERVIEW

Further significant reductions in bedstate have occurred during the year, with both staff and clients moving to houses in the community.

The Centre experienced two major disruptions during the year. Firstly, industrial stoppages in support of a 38-hour week resulted in the widespread use of volunteers for a number of days. Secondly, a fire in a villa house brought about the Centre's premature involvement in administering an Alternative Living Service house, when accommodation was urgently required.

New initiatives taken include the development of a community-based Activity Centre, "Woodstock"; a complete restructuring of all Centre-based resident programmes; a review of all of the Centre's Standard Practice Instructions and the introduction of a weekly staff Newsletter.

The two significant projects undertaken this year were the completion of the Oval, and the building of the Banksia Recreational Area.

CLINICAL/TRAINING ACTIVITIES

There were a number of significant changes to the way in which programmes were arranged for clients.

The three Activity Centres operating within the Centre for 22 young adults combined and moved to rented premises in the suburb of Toowong.

A further three Activity Centres have been established within the grounds of Basil Stafford for a total of 18 clients.

Forty-four clients attend schools and training programmes at community facilities run by other agencies.

Clients who do not attend either an outside agency or an Activity Centre, are involved in unit-based structured programmes for a minimum of 20 hours per week.

Finance provided by the Severely Handicapped Educational Programme and Resource Development Committee (SHEPARD) has funded two projects for 17 clients during the year.

During the year, 9 children and 2 adults were admitted to the Centre, whilst 27 were discharged, 5 to community villas, 16 to alternative living services, and 3 to their families.

Nursing/Medical

The usual range of nursing and medical services have been provided during 1982–83.

Arrangements are under way to have Registered Nurses from the Royal Childrens' Hospital come to the Centre for a one-day educational programme.

STAFFING

Staff Training and Development

All staff are being brought into training within 6 months of their employment.

The number of residential care officers presently in training is 99. Of these, 15 are residential care officer students from the community. Numbers of staff waiting to come into training as of the end of June are four.

A graduation of 17 students on 10th June, 1983, brought the total of trained residential care officers to 105.

Staff from the Centre have attended courses run by the Branch, by Management Services, and by the Centre.

Staff Establishments

The current staff establishment is 322 of which 211 are Residential Care Officers. Of this total, 33 staff are seconded to the Alternative Living Service in Brisbane.

COMMUNITY DEVELOPMENT ACTIVITIES

A new initiative this year has been the development of a comprehensive scheme to involve parents of residents to a far greater extent than in the past.

The Parents and Friends' Association continue to provide a strong source of support to the centre.

A major industrial dispute involving strike action by direct care staff led to a general call for volunteers. The response from the general public was outstanding, with over 250 people registering to help if required. Around 100 of these people actually worked at the Centre.

PHYSICAL ENVIRONMENT

The Department of Works completed the last of the Nioka bathroom renovations during June–July, 1982. This Department has also renovated the Nioka Kitchen/Staff Room area, laid a large concrete slab in the yard adjacent to the swimming pool, replaced external wall cladding at Melaleuca, commenced the changeover of door locks at Basil Stafford Training Centre to a master key system, and completed a number of minor jobs.

On 30th May, 1983, the Works Department completed renovation work on Dryandra House following the November 1982 fire.

IPSWICH SERVICES

(Covering Ipswich and surrounding Shires and Challinor Centre)

Superintendent (Challinor Centre): G. McCUTCHEON, M.B., Ch.B.

Superintendent: G. DeGLAS, B.A.

OVERVIEW

This year has seen the implementation of a considerable number of service initiatives and significant developments in the Ipswich Regional Service area, including preparation for the establishment of the Regional Service Office and a Regional Service Executive.

The past year has seen an increase in the number of persons admitted to Challinor Centre without a concomitant increase in the numbers discharged. This reflects a policy direction in relation to placement of intellectually handicapped services from Wolston Park Hospital and a period of consolidation within the Alternative Living Service.

Use of community bases and use of generic community facilities and services has been a prominent theme in all vocational, educational, social and recreational programmes established throughout the year.

Within Challinor Centre, residential units have continued to emphasize the creation of smaller, more personalized living spaces with the accent very much on protecting the rights of their occupants to privacy.

CLINICAL/TRAINING ACTIVITIES

Resource and Assessment Services

The total number of children seen was 77, with a total of 31 new referrals during the year.

Activities have included weekly playgroups for both toddlers and infants, and individual therapy both at 3 Parker Avenue and in the home.

Positive liaison has continued this year with Ipswich Central Special Pre-school, Endeavour Foundation, Department of Children's Services and the Ipswich General Hospital.

Alternative Living Service

There are 95 intellectually handicapped clients resident in some 30 separate residential facilities situated throughout Ipswich City. Nineteen new referrals were accepted and eight clients were referred to other agencies throughout the year.

Of the 95 present clients, 34 are in sheltered employment, with the remainder in a variety of in-service programmes.

The Alternative Living Service continues to be the subject of intra, interstate and overseas interest, with visitors coming from as far away as New Zealand and Saskatchewan, Canada. The service has also been the subject of no fewer than six research studies which have predominantly addressed quality of service delivery and the effects of deinstitutionalization.

Challinor Centre

(a) *Admissions and Discharges*

There were 28 long-term admissions to the Centre, whilst a total of 22 clients were discharged to community facilities.

(b) *Training Activities and Services*

There have been significant increases in the quantity, quality and variety of training programmes, particularly in the vocational area, and in use of community facilities.

Functional academic classes continue to be offered to 35 clients.

Thirty-one residents of the Centre attend outside agencies.

Annual holidays continue to be a major feature in the lives of Centre residents.

(c) *Medical Nursing Services*

A 24-hour service continues to be made available to the Centre through morning and afternoon surgeries, house calls, and after-hours provisions.

There is a close liaison with the Ipswich General Hospital and access to specialists is provided as necessary.

For the year under review, surgery appointments totalled 2 962, house calls 204, pathology appointments 276 and admissions to the Ipswich General Hospital 47.

STAFFING

Staff Development

Of the 288 Residential Care Officers currently employed in the Ipswich region, 164 have now completed the Certificate Course in Residential Care, 112 are currently in training and 12 are waiting to enter training. Waiting periods for entry to training have been reduced to within 6 weeks of permanent appointment.

Seminars and workshops continue to be conducted fortnightly for all staff within the Region.

Staff Establishments

The establishment of the region is 531 of whom 288 are residential care officers. The bulk of staff work within Challinor Centre and a small number provide support services to the wider community.

COMMUNITY DEVELOPMENT ACTIVITIES

This past year, community development activities in the Ipswich Region have been directed towards consolidating initiatives taken in 1982. Most important have been working arrangements established with some local agencies, the development of a network of effective procedural agency agreements, and public awareness projects.

Further expansion of the Information Resource Service and the Volunteers for Intellectually Handicapped People programme is occurring.

Friends of Challinor Aid League (FOCAL), now an incorporated body, has accepted an extended role to not only Challinor Centre but also to the community services of the region.

PHYSICAL ENVIRONMENT

No major modifications or alterations to buildings were initiated during the period under review. However, major painting work was carried out in several areas of Challinor Centre.

Demolition of the fire damaged house at 1 Parker Avenue was completed. The carport of the 3 Parker Avenue residence was closed in to provide a carpeted therapy/meeting room.

The move of the Regional Office and Alternative Living Service administration and Community Liaison and Development Unit into the Regional Office will overcome the shortfall in accommodation.

TOOWOOMBA SERVICES

(Covering the Darling Downs and South West Region)

Superintendent: C. CAMPBELL, B.Sc., Dip.Psych. (from 1-7-82 to 22-12-82)
S. PEARSON, B.A. (from 23-12-82)

OVERVIEW

Increasing pressure for unfulfilled adult service needs, maintenance of existing services and increasing placement waiting lists were the essential elements of 1982–83. Delays in the recruitment and appointment of staff had created problems for the service. However, by the close of the year the staff position was improved, enabling active forward planning to meet the needs of intellectually handicapped in south-west Queensland.

CLINICAL/TRAINING ACTIVITIES

Children

The strength of service delivery in this region has traditionally been for children. Considerable emphasis is given to early intervention. Relationships with other departments and paediatricians continue to be excellent.

SHEPARD funding has again been significant in filling gaps in service delivery with on-going therapy assistance, on a sessional basis, to the Education Department's Toowoomba South Special Education Multiple Handicap Unit and liaison assistance to Hamewith School operated by the Endeavour Foundation.

Adults

The Community Resource Centre in James Street is the principle focus of activity for adults (staffed by this service) in the Toowoomba area. Up to 16 clients attend the facility.

Accommodation

Bed state has remained constant during the year with 24 beds at the Villa (seven relief) and six beds at the Alternative Living Service, Windmill Street flats.

Demand for relief continues to outstrip supply and with the Service's emphasis on maintaining clients in the community rather than institutionalizing them, it can be anticipated that this trend will continue.

In an attempt to provide the service with the capacity to respond to emergencies, four beds have been made available at Baillie Henderson Hospital, admission to which is controlled through the Superintendent, Toowoomba Regional Resource Services. This has been a positive step towards the provision of a broader spectrum of facilities.

STAFFING

Staff Development

Residential Care Officer training continues on schedule and is the main area of staff development activity in the Region. Fifteen staff have graduated, 11 are in training and only one is to enter training.

Staff Establishment

The current staff establishment is 47 persons of whom 27 are residential care officers.

COMMUNITY DEVELOPMENT ACTIVITIES

During March, 1983, an Assistant Programme Officer was appointed to assume responsibility for community liaison and development.

MARYBOROUGH SERVICES

(Covering the Wide Bay-Burnett Area)

Acting Superintendent: C. CAMPBELL, B.Sc., Dip.Psych.

OVERVIEW

During the course of the year, the Maryborough region severed its traditional administrative links with the Toowoomba region, and now functions as a separate regional administrative entity. The area covered from the Maryborough base has been extended to include the Kingaroy district, bringing a catchment population of 155 000 in the Wide Bay-Burnett region.

The major pressure upon the service is the need for long-term accommodation for dependent adults, and the investigation of alternatives for this client group is the major current priority.

CLINICAL/TRAINING ACTIVITIES

An active client load of approximately 125 community-based clients has been maintained, with services provided by a professional resource team which makes regularly scheduled visits to the major population centres of Bundaberg, Kingaroy, and Gympie.

Programming has been consolidated within the Adult Centre, operating from rented premises in a small shopping centre near the Villa. This Centre provides a daily programme for adult clients.

Through SHEPARD funding, two professional staff are deployed for educational programming within the 40-bed Disabled Children's Unit at the Maryborough Base Hospital.

An additional three children have been able to attend Caringa School from the Villa, bringing to nine the number of children attending a full-time schooling.

Accommodation

The Villa has continued to provide short- and longer-term care and training for its clients.

However, for the first time since the operation of the Villa it has been necessary to admit clients over the bed state to handle an increasing number of urgent family needs.

STAFFING

Staff Development

Sixteen direct care staff are enrolled in the Certificate Course in Residential Care, nine of whom are in the final stages of training. Four students have graduated during the year.

Staff Establishment

The creation of a Regional Superintendent position for the region has been the most significant change to the establishment of the service.

The staff establishment now stands at 40 persons of whom 22 are residential care officers.

COMMUNITY DEVELOPMENT ACTIVITIES

Daily activities and programmes for residents have been enriched by the continued encouraging responses of volunteers from the community. The inclusion of local high school students in the volunteer programme is a recent innovation.

PHYSICAL ENVIRONMENT

The administrative building housing the resource and assessment centre staff and the Superintendent's Office is fully utilized, and enlargement of part of the building to increase therapy space is under consideration.

ROCKHAMPTON SERVICES

(Covering the Central and Central West Area)

Superintendent: P. KIESEKER, B.Hum.Mov.St.

OVERVIEW

This year has seen the strengthening of the Rockhampton Services with the appointment of a Superintendent and the planning for increased service provision.

CLINICAL/TRAINING ACTIVITIES

The region is catering for 92 clients, 10 of whom reside at the Villa.

Demands for services for adults are growing, and the Alternative Work Provision (AWP) programme has expanded to 18 clients plus Villa relief clients.

Residents of the Rockhampton Villa continue to participate in planned holidays and recreation programmes.

Clients from the Intellectually Handicapped Unit (IHU) are benefiting from both the SHEPARD programme and occupational therapy input.

Four Villa residents continue to attend the Capricorn School (Endeavour), and one resident attends an Endeavour Activity Therapy Centre.

STAFFING

Staff Development

Residential Care Officer training continues. Currently, two Residential Care Officers are in training and are at the 15 month mark. The concept of centralizing training for three regions is being considered.

A professional development training session has been introduced on a weekly basis.

Volunteers recruited for the Service undertake a basic induction course and are provided with on-going training.

Staff Establishments

The establishment of the Region is 29, with 13 being Residential Care Officers.

The most significant development has been the appointment of a Superintendent.

COMMUNITY DEVELOPMENT ACTIVITIES

The service has continued to move into the community via an active volunteers programme, use of local business and industries for client's work experience, use of community resources, and use of community services.

A new community group named "The Intellectually Handicapped Support Persons Group" has been formed in Rockhampton.

PHYSICAL ENVIRONMENT

Tenders have been let for the completion of the Rockhampton Villa. This involves the construction of two further houses and an administration block.

The Service has taken over "Birralee" as a temporary site of its Alternate Work Provision Programme and is anticipating a move to "Yungaba" as a new Clinic. The audiology hut is near completion.

TOWNSVILLE SERVICES

(Covering the North, Far North and North West)

Superintendent: D. CROFT, B.A.(Hons), Cert.Ed., Dip.Ed.Psych.

OVERVIEW

The Regional Resource Service in Townsville is an entirely new service covering the whole of North, Far North and North West Queensland.

The Superintendent was appointed in the first quarter of the financial year as were a number of professional staff.

In October, 1982, the staff were given a pre-service induction course in Brisbane. The pre-service training continued in Townsville, and this was followed by the setting up of offices, the carrying out of a pre-service induction course for Residential Care Officers and the provision of both residential and non-residential services in December. The culmination of this process was the official opening of the Service by the Honourable the Minister for Health on 25th March, 1983.

The service consists of a resource and assessment centre at 25 Acheron Avenue, Cranbrook, Townsville, and a five-bed relief residential at Sauter Street, Cranbrook.

CLINICAL/TRAINING ACTIVITIES

As a new service, the Townsville staff had the advantage of being able to operate from the start within the Individualized Training and Environmental Plan (ITEP) framework.

The four-bed relief house with one emergency bed opened on 12th December, 1982, with three clients. The relief service has operated successfully since its inception. The average daily ocupancy of the house has risen from 2.54 in December to 3.85 in June.

There have been 54 admissions in this period with the average length of stay of seven days (children under 18—6 days; adults—9 days). Clients staying at the house have come from Home Hill, Cairns area, Mount Isa, Charters Towers and Ingham, as well as from Townsville.

Since the start of services, a total of 92 clients have been referred, with all clients receiving contact or services as required.

A programme for severely and profoundly handicapped adults commenced in February, 1983, with the support of the parent group, Kith and Kids, and volunteers.

Holiday programmes were run over the Christmas 1982 vacation, at Easter and in June.

Steadily increasing input has been given to the local SHEPARD project for which Intellectual Handicap Services is one of the grantees.

STAFFING

Staff Development

Staff development has received a high priority from the time of the pre-service induction, with much assistance being received via Branch Office.

Residential Care Officers (Training) have undergone their first block of classroom training.

Staff Establishment

The establishment of the service is 15, with six of these being Residential Care Officers.

COMMUNITY DEVELOPMENT ACTIVITIES

A positive relationship has been developed with the Kith and Kids Association, and this has been furthered by information nights for parents.

Major efforts have been made to promote positive relationships with other agencies, with visits and consultations a regular activity.

Volunteers have been recruited both to work in the adult programme and to act as "buddies" for particular clients. Evening training sessions for volunteers are held once a month.

In June, the initial work involved in setting up a local information resource service was carried out.

A local newsletter, to be published monthly, was commenced in May.

PHYSICAL ENVIRONMENT

The resource and assessment service occupies a building previously utilized by the Kith and Kids Association. Minor renovations to that building and to the relief house have been carried out by the Works Department.

The necessity for accommodation to run an adult centre has already become apparent and there have been long-term plans established to provide such accommodation.

MAINTENANCE (INCLUDING SALARIES) EXPENDITURE, 1982–83—DIVISION OF PSYCHIATRIC SERVICES

Service	Department of Health	Department of Works	Total	Daily Average Residency	Annual Cost Per Patient	Daily Cost Per Patient
	$	$	$		$	$
Office of the Director—						
(includes Intellectual Handicap Services Branch, Head Office, Supervised Group Homes, Continuing Care and Mary Street Psychiatry Clinic) ..	2,921,001	1,486	2,922,487	..	..	..
Stones Corner Clinic	497,225	..	497,225	..	..	..
Gold Coast Clinic	19,565	..	19,565	..	..	..
Totals	3,437,791	1,486	3,439,277	..	..	..
Psychiatric Hospitals—						
Wolston Park Hospital	22,816,850	111,251	22,928,101	671.48	34,146	93.55
Wacol Repatriation Pavilion*	1,489,992	..	1,489,992	86.69	17,188	47.09
Baillie Henderson Hospital	12,324,479	291,224	12,615,703	452.00	27,911	76.47
Mosman Hall	3,301,283	62,330	3,363,613	174.72	19,251	52.74
Totals	39,932,604	464,805	40,397,409	1,384.89	29,170	79.92
Intellectual Handicap—						
Brisbane Regional Resource Service	863,260	..	863,260	..	..	..
Townsville Regional Resource Service (including Villas)	239,030	2,389	241,419	3.85	..	..
Rockhampton Regional Resource Service (including Villas)	567,335	4,267	571,602	10.25	..	..
Maryborough Regional Resource Service (including Villas)	813,324	26,309	839,633	21.15	..	..
Toowoomba Regional Resource Service (including Villas)	958,469	8,509	966,978	20.58	..	..
Alternate Living Programme	41,326	..	41,326	..	..	..
Challinor Centre	11,102,519	127,285	11,229,804	359.70	31,220	85.53
Basil Stafford Training Centre	7,214,231	111,923	7,326,154	198.87	36,839	100.93
Totals	21,799,494	280,682	22,080,176	614.40	35,938	98.46
Cash Equivalent of Long Service Leave	313,804	..	313,804	..	..	..
GRAND TOTAL	65,483,693	746,973	66,230,666	1,999.29	33,127	90.76

* Recouped from Commonwealth Department of Veterans' Affairs.

DIVISION OF PSYCHIATRIC SERVICES
Loan Fund Expenditure 1982–83

Service	Amount	
	$	$
Wolston Park Hospitals—		
Lighting to Rear Wards	9,020	
Frozen Food Facilities	126,324	
Upgrade Bathroom—Kelsey House	8,843	
Sewerage—Stage I	38,521	
Sewerage—Stage II	173,505	
Sewerage—Stage III	149,674	
Emergency and Standby Lighting—Stage 11A	70,116	
Emergency and Standby Lighting—Stage 11B	20,748	
Emergency and Standby Lighting—Stage 111A	41,368	
Other Works	89,075	727,194
Baillie Henderson Hospital—		
Frozen Food Facility	21,128	
Emergency and Standby Lighting	25,850	
Indoor Recreation Centre	133,321	
Other Works	21,639	201,938
Mosman Hall—		
Electrical Improvements	4,421	
Connection of Sewerage	64,516	
Other Works	21,075	90,012
Challinor Centre—		
Frozen Food Facility	63,547	
Emergency Power	1,847	
Other Works	5,095	70,489
Basil Stafford Training Centre—		
Frozen Food Facilities	19,578	
Solar Hot Water Installation	24,825	
Refurbishing TCA/TCB	8,486	
Other Works	23,910	76,799
Community Villas—		
Townsville—		
Resource Assessment Centre	114,551	
Other Work	25	114,576
Rockhampton—Other Works	1,487	1,487
Maryborough—Other Works	1,463	1,463
Toowoomba—Other Works	440	440
Ipswich East—		
Hostel—Other Works	49	49
Brisbane—		
Emergency and Evacuation Lighting	10,117	
Other Works	416	10,533
$	..	1,294,980

MENTAL HEALTH REVIEW TRIBUNAL—1982–83

Applications adjourned from 1981–82	11	
Applications awaiting hearing as at 30–6–82	14	
		25
Applications received by Tribunal during 1982–83—		
From patients	85	
From nearest relatives of patients	4	
From Director or Deputy Director of Psychiatric Services	3	
		92
		117
Applications heard by Tribunal during 1982–83—		
Refused	40	
Discharge recommended	1	
Derestriction recommended	2	
Transfer recommended	7	
Refusal of visiting rights recommended	1	
Recommend patient continue as a regulated patient	2	
Adjourned as at 30–6–83	4	
		57
Applicants who failed to appear before Tribunal—		
Withdrew Application	10	
Discharged by Hospital	13	
Declared a voluntary patient	4	
Deceased	1	
		28
Applications awaiting hearing as at 30–6–83	32	
		32
		117

COLLECTIONS—HOSPITALS AND CENTRES

——	Amount	Per Patient Day
	$	$
Maintenance paid by Patients—		
Wolston Park Hospital	1,620,887	5.36
Baillie Henderson Hospital	1,093,492	6.63
Mosman Hall	402,724	6.32
Challinor Centre	1,035,620	7.89
Basil Stafford Training Centre	443,499	6.06
Community Villas	53,174	2.60
	4,649,396	6.15
Recouped from Department of Veterans' Affairs*	1,691,672	..
Pharmaceutical Benefits	279,260	..
	6,620,328	8.76

* Does not include recoupment of expenditure on Capital Works.

H. R. G. BARRETT PSYCHIATRY CENTRE
Showing Admissions and Discharges During the Year Ended 30th June, 1983

——	Male	Female	Total
On the Books as at 1st July, 1982	81	65	146
Total Admissions during year	542	375	917
Total Under Care during year	623	440	1 063
Total Discharges during year	553	390	943
Resident as at 30th June, 1983	36	29	65
On Leave as at 30th June, 1983	34	21	55
Total on Hand as at 30th June, 1983	70	50	120
Average number daily resident	36.21	33.41	69.62

* The above are preliminary figures only. More precise and detailed figures will be available in late 1983.

PSYCHIATRIC HOSPITALS

Showing Admissions and Discharges During the Year Ended 30th June, 1983

—	Wolston Park Hospital			Baillie Henderson Hospital			Mosman Hall			Grand Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
On Books as at 1st July, 1982	599	281	880	292	178	470	223	..	223	1 114	459	1 573
Total Admissions during year	231	110	341	192	165	357	126	..	126	549	275	824
Total Under Care during year	830	391	1 221	484	343	827	349	..	349	1 663	734	2 397
Total Discharges during year	284	162	446	214	162	376	152	..	152	650	324	974
Resident as at 30th June, 1983	506	213	719	263	176	439	172	..	172	941	389	1 330
On Leave as at 30th June, 1983	40	16	56	7	5	12	25	..	25	72	21	93
Total on Hand as at 30th June, 1983	546	229	775	270	181	451	197	..	197	1 013	410	1 423
Average Number Daily Resident	..	..	758	..	..	452	..	..	175	..	..	1 385

* The above are preliminary figures only. More precise and detailed figures will be available in late 1983.

CENTRES FOR THE TRAINING OF THE INTELLECTUALLY HANDICAPPED

Showing Admissions and Discharges During the Year Ended 30th June, 1983

—	Basil Stafford Training Centre			Challinor Centre			Grand Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
On Books as at 1st July, 1982	111	93	204	215	156	371	326	249	575
Total Admissions during year	119	96	215	87	36	123	206	132	338
Total Under Care during year	230	189	419	302	192	494	532	381	913
Total Discharges during year	133	99	232	86	36	122	219	135	354
Resident as at 30th June, 1983	92	87	179	209	153	362	301	240	541
On Leave as at 30th June, 1983	5	3	8	7	3	10	12	6	18
Total on Hand as at 30th June, 1983	97	90	187	216	156	372	313	246	559
Average Number Daily Resident	..	..	199	..	..	360	..	..	559

* The above are preliminary figures only. More precise and detailed figures will be available in late 1983.

DIVISION OF ALCOHOL AND DRUG DEPENDENCE SERVICES

Director: Dr M. H. BOLTON, M.B., B.S.

Deputy Director (Treatment): Dr J. R. CLARKE, M.B., B.S., B.M.Sc. (April, 1983)

Deputy Director (Prevention and Co-ordination): Mr L. P. LUMSDEN, M.A., M.A.P.S.

Assistant Director (Staff and Community Development): Mr R. J. CARVOLTH, B.A.(Hons.), M.A.P.S.

Administration Officer: Mr R. E. FLETCHER

Superintendent of Nursing: Mr P. STARR, R.P.N., R.G.N., Dip.A.P.P.S.C.N.U.R.S.A.D.M.

OVERVIEW

The Alcohol and Drug Dependence Services has responsibility for the provision, co-ordination, facilitation and integration of services for the prevention and treatment of alcohol and drug abuse and dependence and related problems.

All treatment units have been particularly busy, with resources strained in coping with increasing numbers of clientele. Numbers of patients attending the Drug Dependence Clinic have increased to an extent which has necessitated planning for improved facilities.

Whilst comprehensive data referrable to outcome of treatment is not as yet available, indications of success in all areas and units are encouraging.

Five sub-committees have been established within the Division with the task of reviewing and improving operation in a number of areas. Sub-committees are examining assessment procedures, patient files, outpatient and community activities, training (both in-service and the training of other workers in the field), and collection and utilization of data, research and evaluation.

A short-term outcome study on patients from Wacol Rehabilitation Clinic is almost completed, and results of this study together with an up-to-date knowledge of the literature about dependency will be used by a task force from Wacol to design and implement a data-based programme with mechanisms for evaluation built in. A project has been planned to examine some measures of outcome of the Drug Dependence Clinic's Methadone Programme. Information from this study will be used to design a more complete evaluation of the Drug Dependence Clinic's programme as well as for short-term planning purposes. A group has been established to examine the results of a needs survey which was undertaken to determine whether a further drug-free residential treatment facility is needed by the community. This group will collate these results and examine such units elsewhere, before presenting recommendations about the acquisition of an appropriate unit in Queensland if this is indicated. Comprehensive documentation of all programmes has been, or is being undertaken, preparatory to evaluation so that future planning may be logical, cost effective and data based.

The membership of the Consultative Committee has continued to provide most valuable advice to the management of Alcohol and Drug Dependence Services about a range of issues which are within the areas of expertise of individual members. A Departmental Sub-committee has been established to advise on the development of integrated policy initiatives regarding community alcohol consumption patterns.

Training activities have increased and have included a number of workshops about alcohol and drug dependence for qualified health workers held both in Brisbane and Townsville. In addition to the two (2) Alcohol and Drug Dependence Services' officers in Townsville and one in Mackay, planning is under way to base an officer at Mount Isa, one at Rockhampton and one on the Gold Coast. The task of these officers will be to assist the respective communities in the development of services for the prevention and treatment of alcohol and drug dependence as well as in the direct provision of services.

The range and scope of prevention activities has increased as a result of careful planning of appropriate interventions. Of particular note is the role of staff in assisting the Alcohol and Drug Programme Unit of the Education Department and the Division of Health Promotion in the development of appropriate drug education programmes for State schools. A memorable occasion was the Graduation Ceremony held for 57 Aboriginal Counsellors who had undertaken the training programme organized by the Aboriginal Project Team at Biala.

Staff of all disciplines and programmes have been responsible for the harmonious and positive working relationships that exist at all levels in the Alcohol and Drug Dependence Services. We have again been fortunate to have such productive relationships and liaison with a wide range of community agencies (both statutory and voluntary).

TREATMENT

"Biala"

The Biala inpatient program has had a busy year with 1 873 admissions for short-term sobering up and detoxification. Staffing constraints are still a problem, but staff have been assisted by voluntary workers wherever possible. The activities programme is due for a review and this is under way. The whole inpatient area is being evaluated and it is hoped that the results and recommendations will enhance the quality and efficiency of care given to patients. Staff development and in-service training has received high priority this year.

The Biala outpatient counselling programme provides individual counselling; couple and family therapy; counselling for families and relatives; a duty roster for telephone counselling and seeing patients "off the streets"; a referral and liaison service for and with other agencies; liaison with hostels and residences; group thererapy, recreation and leisure development; education, information and supervision service for various students; preparation of court reports and liaison with Womens' Refuges. Patients are seen on a long- or short-term basis, and home visits are done where necessary. An evening clinic is held to assist working patients. Staff also make a substantial contribution to the Biala inpatient area. The total recorded number of outpatient visits is 6 489.

The Teenage and Adolescent Treatment Programme aims at reducing the personal debilitating effects of substance abuse in under 25-year-olds and provides a service to those people who are at higher risk of becoming substance abusers. The team works with Probation and Parole towards another aim which is to bring about a reduction in personal criminality associated with drug abuse. This year there has seen an increase in referrals to this programme, with 1 699 patient contacts made. Week-end recreational activities have begun, with a successful camp being held in December, 1982.

The Day Hospital and Farm Project has as its objective, the day-to-day intervention in a patient's drinking pattern. The patient is encouraged to minimize or cease drinking and then cope with ancilliary problems. A group has been established for those with three weeks' sobriety. Some patients are placed on privately run farms in the areas surrounding Brisbane and are visited by staff fortnightly. The patients are mainly recidivist drinkers who have not benefited measurably from more structured programmes.

Liaison with Community Agencies is an integral part of Alcohol and Drug Dependence Services operation. It helps the Services to remain attuned to the needs and views of the wider community, to implement effective conjoint strategies and to maximize treatment resources and minimize wasteful duplication. Regular meetings are held in Biala by Alcoholics Anonymous, Al-Anon, Alateen and GROW.

The Authorized Voluntary Workers provide a service and amenities of a nature not able to be provided by the Government, e.g. cigarettes, personal errands, etc. They also maintain and service the "Coffee Club" within Biala, catering for an average of 30 users per day. Approximately three workers a day provide this service. Currently, 20 people give their services in this area.

The Community Voluntary Employment Scheme aims to place people who are being treated by our Service as inpatients or outpatients in voluntary work. The Scheme is aimed at people who are unable to find paid work and are not ready to function in paid jobs. Thirty-six people have been referred to the pilot scheme.

"Drug Dependence Clinic"

The Clinic has continued to play an active role in the on-going management of people with narcotic drug dependencies, using a methadone maintenance programme and/or counselling.

The numbers of new patients treated has increased by 70 per cent, but the total patients interviewed, treated and counselled increased by almost 100 per cent. This has put a tremendous strain on the limited resources available. Staff has been increased by one part-time medical officer.

Liaison and consultation with Probation and Parole Officers, various Community Health Centres, hospitals and general practitioners is seen as having been fruitful.

Instructive talks and lectures have been given to student nurses at various training hospitals, medical students, psychology, social work and pharmacy students; also the RAAF Military Police, Prison Officers and Ship's Captains.

"Wacol Rehabilitation Clinic"

This is a medium- to long-term residential treatment facility for the recovery of patients affected by the abuse of addictive substances. Up to 100 males and 18 females can be accommodated. This year it was again necessary to have a waiting list, on occasions, for these beds. The length of stay can be variable, but is usually 3–8 weeks.

All patients initially attend an Assessment Group. Together with staff, an appropriate course of therapy is decided. This will include educational programmes involving lecture/discussions and films; activity programmes involving crafts and manual work; and psychotherapy groups. Attendance at A.A. and GROW meetings is encouraged.

Some projects undertaken this year have been the repainting of the kitchen in Section 2 and the establishing of two rose gardens at Section 1. A second adventure playground has been constructed at Basil Stafford Centre and the oval there levelled and returfed.

In-service staff training has been conducted continuously throughout the year. Senior staff have also provided supervision for final year students in psychology, social work and occupational therapy from the University of Queensland.

"Pavilion 4—Royal Brisbane Hospital"

Pavilion 4 continues to deliver a short-term in-patient/outpatient rehabilitation programme for people with problems related to abuse of alcohol and other drugs, followed by a 3-month, weekly follow-up programme. The main objectives have been to help patients come to terms with and/or improve the quality of their day-to-day lives in areas such as physical health, personal meaningfulness, family interaction, social functioning and occupational performance.

Group sessions remain the focal point of the therapy programme. Individual sessions with patients, together with relatives and employee advisers/union representatives, have increased. These serve the purpose of establishing community support and simultaneously act as an educational forum.

Other schemes, started in previous years, have consolidated. These include a socialization/leisure programme; Drink Driving Programme; assistance to S3 Toowoomba General Hospital and Employee Assistance Programmes.

In August, 1982, Ward consultations were commenced on a regular basis. This resulted in a 300 per cent increase in referrals from the Royal Brisbane Hospital. Of those seen, 50 per cent were new referrals to Alcohol and Drug Dependence Services.

"Community Liaison Programme"

This programme is involved in both clinical and liaison work in the community referable to problems of substance dependence.

The areas serviced by this programme, include Redcliffe, Wynnum and Bay Side, Gold Coast, Woodridge and Inner City. Groups making referrals include 15 Community Health Centres, Southport Hospital, Children's Services, Probation and Parole, Lifeline, Blue Nurses and St Lukes Nursing Service.

The Programme has also been used extensively by Pavilion 4 and Biala for follow-up counselling and for crisis service. In total, there have been 381 patients referred to this programme during the year.

Liaison and lectures have occurred with various Brisbane metropolitan hospitals, Ipswich and Gympie Hospitals, and Maternal and Child Welfare Centres.

There is now a recognized need to increase our Service input to the Gold Coast area. This should occur in the next financial year.

"Armed Forces Programme"

Over the last 12 months, Alcohol and Drug Dependence Services has been more involved with all branches of the Armed Forces.

Dr J. Clarke (Capt. A.Res) is a member of the Steering Committee within the Army, which is working towards setting up an Alcohol Rehabilitation Unit for Army personnel in Queensland. She is also the resource person for C.O.'s, O.C.'s and Padres to contact *re* treatment of current problems in Army servicemen and women.

The RAAF Police, Drug Investigation Squad, now have their training establishment at Amberley. Various Alcohol and Drug Dependence Services staff have been involved in input into their programme, as lecturers. There have also been requests from other RAAF groups for information lectures.

The Navy, through the M.O. of H.M.A.S. Morton, have begun to use our inpatient and outpatient facilities at Biala and Pavilion 4.

PREVENTION

Prevention activities for 1982–83 have again concentrated on three major areas:—

(i) The identification and development of early intervention programmes;
(ii) The training of health and welfare workers;
(iii) Long-term policy and community attitude change programmes.

"Early Intervention Programmes"

Services have continued to be offered to Women's Refuges in the form of discussion groups and consultation with staff. It has been clearly established that many women and children in the refuge system come from situations aggravated by the abuse of alcohol. Such women have specific additional problems with which the Alcohol and Drug Dependence Services is well equipped to assist. Some husbands have subsequently sought help for their problems. The children represent a high risk group with respect to subsequent adult alcohol and other drug abuse. A special needs group has been identified. Women with alcohol or other drug problems pose a unique set of problems.

Work with a range of church denominations continued, with projects being considered by some not previously active in the area. This year saw the first theological student on placement at Biala and it is anticipated that such placements will become annual events as with other professions.

The State Industry Committee of the Alcohol and Drug Problems Association of Queensland has been upgraded and, with the success of the Interlock Programme in Townsville, has begun to develop similar programmes in Brisbane.

"Training of Health and Welfare Workers"

The major development in this field has been in the area of medical education through the Medical Faculty of Queensland University, the Australian Medical Association and professional associations. Contact with other faculties and with Colleges of Advanced Education concerning alcohol and drug content in health and welfare training programmes continued.

During August, 1982, Professor Griffith Edwards from the Addiction Research Unit, Maudsley Hospital, London, visited Brisbane. Senior staff from Government Departments, Universities, and Colleges of Advanced Education were invited to participate in lectures on the treatment and prevention of alcoholism.

Training workshops for health and welfare workers are discussed elsewhere.

"Long-Term Policy and Community Programmes"

The Alcohol and Drug Dependence Services is only one of a number of Government and other organizations involved in long-term issues concerning alcohol and drug problems. Co-ordination at a National level continued to be maintained through the National (Standing) Committee on Alcohol, and other meetings and communication between Government officers. The Minister's Consultative Committee on Alcohol continued to be active in providing both the Minister and the Director, Alcohol and Drug Dependence Services, with advice. A Departmental Sub-committee was established to make recommendations on long-term prevention strategies. During 1982-83, Queensland became the first State to introduce alcohol content labelling and to produce an accompanying education programme. Regular contact was maintained with the Department's Division of Health Promotion, and the Education Department's Alcohol and Drug Programme Section.

The Aboriginal Project Team worked towards providing greater assistance to the 10 autonomous and 16 developing programmes throughout Queensland by increasing the length of time spent visiting each and by working towards the employment of more trained counsellors. The first graduation of the Counsellor Training Course was held on 5th March, 1983, with a total of 57 people gaining certificates.

RESOURCE AND COMMUNITY DEVELOPMENT PROGRAMMES

"National Development Programmes"

Through the Assistant Director, Departmental participation has contributed much to co-ordinating and developmental efforts of—

(1) the meeting of Interstate Alcohol and Drug Authorities (Darwin, July, 1982; Melbourne, March, 1983);

(2) the Australian Foundation on Alcoholism and Drug Dependence (A.F.A.D.D.).

Significant new developments of the Foundation in which Queensland has played a prominent part are groundwork for the proposed establishment of a joint foundation with Lions Clubs International and A.F.A.D.D. This foundation would have as prime objectives the development of awareness, behaviour change, and projects related to prevention of drug abuse at club member, club and community levels. Already a pilot project involving North Brisbane is well advanced.

This Department had the honour of playing the major role in development and presentation of the Inaugural National Drug Institute, conducted between 19th–21st May. Russell Carvolth, as Queensland Vice President of A.F.A.D.D., was Chairman and Organizer of the Institute held under the sponsorship of A.F.A.D.D. in association with the Alcohol and Drug Problems Association of Queensland and this Service. A number of new projects are developing as a direct result of the Conference.

"Training and Staff Development"

In negotiation with supervisors and Senior Nurse Therapists, in-service training sessions are conducted regularly at Biala and on a request basis at the other clinics. Individualized staff development programmes are also designed and implemented on a contract basis. Special in-service training workshops and seminars are also conducted on therapeutic skills and technical skills, such as the use of audio-visual resources.

Following the establishment of an overall policy for in-service training, four working parties have been established for the purpose of developing a formal policy and a comprehensive set of procedures for the following:—

(a) Supervision;

(b) Orientation;

(c) Basic in-service course; and

(d) Further advanced in-service courses.

Metropolitan training workshops based on five input modules, run one day per week for five consecutive weeks, on a quarterly basis. Places are made available for staff of the Service in each metropolitan training workshop. Regional workshops also based on five input modules run for five consecutive days in selected regional areas. The first pilot workshop was conducted in Brisbane in November, 1982. After revision and development following the pilot workshop, the first formal regional workshop was conducted in Townsville during March, 1983. Ultimately, it is the intention of the sub-programme that the workshop programme will be developed into a transportable training-resource package available to training staff, medical officers and clinical supervisors throughout the State.

As a standard part of their courses, Education Department Guidance Officers, Life Line trainee counsellors and apprentices at Main Roads and Queensland Electricity Generating Board receive regular sessions focusing on alcohol and drug use and consequences.

"Planning and Evaluation"

The Manager of this programme is involved in a diverse range of areas including promotion in all tertiary educational institutions of appropriate alcohol and drug research and evaluation, production of training papers and clinical consultation.

Major projects have been:—

(1) The initial stage of a comprehensive evaluation of the Queensland Methadone Programme. This has included an extensive literature review. Continuing resource has been provided to the After-care Evaluation Project which was the first major evaluation of outcomes of a Service treatment programme to be undertaken;

(2) Operationalizing in Queensland of the first pilot National Survey of Alcohol and Drug Treatment Agencies and Census of Clients;

(3) Promotion of a survey of near north coast needs for facilities and services;

(4) Review of the client records system.

"Information/Education and Library Resource"

This Services' promotion of Alcohol Awareness, particularly in respect of blood alcohol levels and drink driving, was a significant feature of the Health Department's R.N.A. display which has also been featured in shopping centre displays, rural shows and the National Drug Institute.

Awareness programmes for community groups and continuing support for in-service training for Community Health Nurses, Hospital Nursing staff, Industrial Supervisors and apprentices have continued.

Seminars have been arranged for Juvenile Aid Bureau staff and other groups at the Police Academy.

The Special Health Education Project Kit has been adopted for use by the Youth Council of Queensland, and an introduction and explanation of its use has been included in the Leadership Award Training Courses held throughout the State.

Continuous requests are made for the range of literature and pamphlets provided free of charge by the Service, and these are distributed also through many Community Health Centres throughout Queensland.

During the year, the Directory of Services for Alcoholic and Drug Dependent Persons and their families has been revised and will be re-published early in 1983–1984.

"Library"

The library has continued to expand and is being fully utilized in providing a variety of services to both Biala staff and other users. The number of external researchers continues to increase, thus making the time for cataloguing ever reducing. Journal articles are continuing to be indexed, providing easier access to information.

"Community Development"

Rural and Regional

In Ipswich, the "Ipswich Network of Alcohol and Drug Abuse Agencies" group has moved to an advanced stage of analysis and planning with specific proposals for development of its community's resources.

The successful recruitment of a most experienced psychologist to join the Townsville Programme Officer has added to the counselling and development thrust in the region. Regular consultations with hospital medical and allied staff occur. The Alcoholism Hostel has been operated by the Alcohol and Drug Problems Association of Queensland (A.D.P.A.Q.) Regional Interest Group, with significant assistance continuing from our officers. Industry programme contact and regular visits to Mosman Hall psychiatric hospital at Charters Towers occur. Three training programmes, including a five-day course for professional workers, have been conducted by Brisbane staff in association with local staff and resource persons. An agencies group, under an A.D.P.A.Q. umbrella, was formed as a result of a development exercise in the October workshop.

Hospital and community development in Mackay warrant commendation of all involved. The Mackay Base Hospital alcohol treatment programme is reflecting a higher proportion than previously of first contacts, and patients are more intact than had previously been the case. Resource is now provided in a wide range of training programmes and community projects including hospital staff training in sociology and other areas, and Hotel Patron Care Programme training for bar staff (in a form modified to suit needs and resources available in country areas).

The Bundaberg Alcohol and Drug Concern Centre group, formed out of a Service resourced development seminar in 1978, has requested further assistance in its future development.

"Patron Care Programme"

This is a major community development and training programme conducted in metropolitan areas and takes in South-East Queensland with early spread now to some regional areas. One aim of the programme is to intervene in problem drinking situations in hotels and refer people to help when appropriate.

Two hundred and seventy hotels, their staff and management are directly involved and of these, 20 permanently display the pamphlet "When Drinking Doesn't Help".

One thousand hotels are familiar with the programme through articles in the Queensland Hotel Association (Q.H.A.) Review. The Service will again make a presentation at the Annual Convention of the Association.

Plans are being developed for direct negotiation with the licensed club association which, it is hoped, will lead to the provision of training programmes for licensed club bar staff.

Approximately 700 experienced bar staff have attended in-house, video-assisted training sessions. Over 100 intending bar staff have attended training sessions, industry and Education Department courses. A series of articles are being written on request from a range of sources including Australian and Hong Kong conferences and programmes in the United States.

One direct result of the programme being a feature of the National Drug Institute Conference in May, 1983, was the foundation of an on-going informal group representing both Government and Liquor Industry. Action plans for promotion and introduction of Patron Care in an additional two States were also developed.

All licensees or intending licensees having business with the Licensing Commission (Queensland Justice Department) are offered information on training and awareness programmes available from Patron Care.

Awareness visits by liquor industry executives to Alcohol and Drug Dependence Services' treatment facilities will shortly begin.

WACOL REHABILITATION CLINIC
IN-PATIENT STATISTICS
1-7-82 to 30-6-83

Month	Remaining in 1st of Month			Admitted			Treated			Discharged			Remaining in End of Month			Total Patient Days			Daily Average			Average Residence	
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	Hosp.	Lv.	Abs.	Hosp.	Lv.	Abs.	Hosp.	On Bks.
July	85	5	90	52	6	58	137	11	148	64	7	71	73	4	77	2 471	181	18	79.71	5.84	0.58	16.70	18.04
August	73	4	77	66	6	72	139	10	149	49	6	55	90	4	94	2 397	145	24	77.32	4.68	0.77	16.09	17.22
September	90	4	94	67	9	76	157	13	170	60	2	62	97	11	108	2 823	264	11	94.10	5.47	0.36	16.61	17.64
October	97	11	108	59	7	66	156	18	174	80	10	90	76	8	84	2 608	278	17	84.13	8.97	0.55	14.99	16.68
November	76	8	84	67	3	70	143	11	154	65	7	72	78	4	82	2 340	181	15	78.00	6.03	0.50	15.19	16.47
December	78	4	82	54	3	57	132	7	139	47	3	50	85	4	89	2 613	269	9	84.29	8.68	0.29	18.80	20.80
January	85	4	89	76	5	81	161	9	170	67	3	70	94	6	100	2 555	246	25	82.42	7.94	0.80	15.03	16.62
February	94	6	100	61	9	70	155	15	170	62	4	66	93	11	104	2 557	266	5	91.32	9.50	0.18	15.04	16.64
March	93	11	104	69	6	75	162	17	179	65	11	76	97	6	103	2 851	277	42	91.97	8.93	1.35	15.93	17.71
April	97	6	103	57	4	61	154	10	164	60	4	64	94	6	100	2 571	331	41	85.70	11.03	1.37	15.68	17.95
May	94	6	100	68	8	76	162	14	176	75	4	79	87	10	97	2 654	224	31	93.83	7.22	1.00	15.68	17.95
June	87	10	97	61	7	68	148	17	165	56	11	67	92	6	98	2 721	315	7	101.43	10.50	0.23	15.08	16.53
Annual	85	5	90	757	73	830	1 806	152	1 958	750	72	822	92	6	98	31 161	2 877	245	87.01	7.89	0.67	17.50	15.91

On books 95.57

ALCOHOL AND DRUG DEPENDENCE SERVICES
"BIALA"—IN-PATIENT FACILITY
1-7-82 to 30-6-83

Month	Remaining in 1st of Month			Admitted			Treated			Discharged			Remaining in End of Month			Total Bed Days			Daily Average			Average Residence		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
July	15	3	18	132	15	147	147	18	165	130	18	148	17	..	17	534	39	573	17.23	1.25	18.48	3.63	2.17	3.47
August	17	..	17	139	24	163	156	24	180	138	21	159	18	3	21	570	96	666	18.39	3.09	21.48	3.62	4.00	3.70
September	18	3	21	135	20	155	153	23	176	134	21	155	19	2	21	563	61	624	18.77	2.03	20.80	3.70	2.65	3.57
October	19	2	21	144	21	165	163	23	186	143	21	164	20	2	22	557	75	632	17.97	2.42	20.39	3.42	3.26	3.39
November	20	2	22	129	22	151	149	24	173	129	20	149	20	4	24	573	81	654	19.10	2.70	21.80	3.84	3.37	3.78
December	20	4	24	145	24	169	165	28	193	149	28	177	16	..	16	551	104	655	17.77	3.35	21.13	3.34	3.71	3.39
January	16	..	16	146	19	165	162	19	181	144	16	160	18	3	21	574	92	666	18.52	2.97	21.49	3.54	4.84	3.68
February	18	3	21	114	27	141	132	30	162	115	27	142	17	3	20	532	112	644	19.00	4.00	23.00	4.03	3.73	3.98
March	17	3	20	142	23	165	159	26	185	144	25	169	15	1	16	575	97	672	18.55	3.13	21.68	3.62	3.73	3.63
April	15	1	16	117	17	134	132	18	150	116	15	131	16	3	19	535	62	597	17.83	2.07	19.90	4.05	3.44	3.98
May	16	3	19	132	17	149	148	20	162	132	20	152	16	..	16	574	82	656	18.51	2.64	21.16	3.87	4.10	3.90
June	16	..	16	127	24	151	143	24	167	120	27	147	18	2	20	566	113	679	18.86	3.76	22.63	3.95	4.70	4.06
Annual	15	3	18	1 602	253	1 855	1 617	256	1 873	1 599	254	1 853	18	2	20	6 704	1 014	7 718	18.36	2.77	21.14	3.71	3.66	3.69

DIVISION OF YOUTH WELFARE AND GUIDANCE

FULL-TIME PSYCHIATRIC SPECIALISTS

Senior Medical Director: A. B. SHEARER, M.B., B.S.(Qld.), F.R.A.N.Z.C.P., M.R.C.P.(London), M.R.C.Psych., D.P.M.(Qld.), F.R.A.C.M.A.

Regional Supervisor (North Queensland): P. TUCKER, M.B., B.S., D.P.M., F.R.A.C.G.P., M.R.C.Psych. (London), M.R.A.N.Z.C.P.

Medical Directors:

Brisbane: J. P. FOLEY, M.B., B.S.(Qld.), F.R.A.N.Z.C.P., D.P.M.(Qld.), Grad.Dip.Bus.Admin.Q.I.T.
CARY BREAKEY, M.B., B.S.(Monash), D.P.M.(Qld.)

Toowoomba: A. H. MUUL, M.D.(Qld.), M.R.C.Psych.
RAY BAILEY, M.B., B.S.(Qld.), D.P.M.(Qld.)
NIGEL COLLINGS, M.B., B.S.(Qld.), D.P.M.(Qld.)
JANE BRADBEAR, M.B.Ch.B., D.C.H., M.R.C.Psych. (Resigned 4-3-83)

PART-TIME PSYCHIATRIC SPECIALISTS

HELEN CONNELL, M.R.C.S.(Eng.), L.R.C.P.(Lond.), M.B., B.S.(Lond.), D.C.H., R.C.P.(Lond.), R.C.S.(Eng.), D.P.M.(Melb.), F.R.A.N.Z.C.P.

RUTH GRANT, M.B., B.S., M.R.A.N.Z.C.P.—Brisbane

MARION MORRIS, M.B., B.S.(Syd.), M.R.A.N.Z.C.P., D.P.M.(Qld.), D.C.H.(London)—Brisbane

IRENE PHILLIPS, M.B., B.S.(Qld.), F.R.A.N.Z.C.P., D.P.M.(Qld.)—Brisbane

ELIZABETH TAN, M.B.CH.B.(Glasg.), D.P.M., R.C.P.R.C.S.(England), M.R.A.N.Z.C.P.—Toowoomba

JEANETTE BEST, M.B., B.S.(Qld.), M.Sc.(London), M.R.C.Psych., D.P.M.(Qld.), M.R.A.N.Z.C.P.—Townsville

RAYMOND KERR, M.B., B.S., D.P.M.(Qld.), M.R.A.N.Z.C.P.—Brisbane

MARY DUNNE, M.B., B.S., D.P.M.(Qld.), M.R.A.N.Z.C.P.

FULL-TIME PAEDIATRICIAN

ALAN BRIGGS, M.B., B.S.(Qld.), M.R.C.P.(U.K.)

PART-TIME PAEDIATRICIAN

GRANTLEY STABLE, M.B., B.S.(Qld.), D.C.H., R.C.P.(London), R.C.S.(Eng.)

PART-TIME NEUROPHYSICIAN

PETER MANN, M.B., B.S.(Qld.), F.R.A.C.P., M.R.C.P.

The Division provides clinical services in the general area of Child, Adolescent and Family Psychiatry, mainly community based. Approximately 10 per cent of children and adolescents have significant emotional behavioural disturbance likely to benefit from the services offered by the Division. A multi-disciplinary team approach is employed and a wide range of diagnostic and therapeutic interventions are in use.

The Clinics receive referrals from a wide range of sources, as well as accepting contacts from the general public. Cases are referred from the medical profession both specialist and general practice, from a wide range of Government Departments, including School Health, Maternal and Child Health and the Division of Community Medicine, and from the Education Department, chiefly through their Division of Guidance and Special Education. Private schools refer a significant number of children and adolescents. Families in crisis who contact community-based organizations are often referred to the Clinics. There is also co-operation between the Division and the Department of Children's Services. An important aspect of this liaison work is in the area of child abuse.

The Community Clinics work very effectively in liaison and co-ordination with schools and community services, both in the assessment and treatment of young people and their families, and in the promotion of preventive mental health measures. This takes the form of group discussion, speaking to community groups and participation in relevant seminars.

The prime aim of the Division of Youth Welfare and Guidance is to establish a State-wide service in Child and Adolescent Psychiatry. Although much ground still has to be covered, significant progress has been made over the past few years and this can be summarized as follows:—

(a) Adolescent Psychiatry

The Division has in conjunction with the Division of Psychiatric Services co-operated in the establishment of the Barrett Adolescent Centre, which is at present functioning for day patients only. It is hoped to extend this service to inpatients as soon as staffing allows.

Although most adolescent problems can be handled at outpatient level, a small proportion of young people have such a degree of disturbance that more intensive treatment is indicated. Sometimes this can be done on a daily attendance basis during week days, but more severe problems will need residential treatment.

Because of the anticipated number of referrals for treatment, a very important aspect of the Barrett Centre's work is assessment. Following the withdrawal of this Division's professional staff from the residential programme at Wilson Youth Hospital and the conversion of that centre to the Sir Leslie Wilson Youth Hostel, the role of our staff in co-operation with the Department of Children's Services will be consultative and assessment.

Young people formerly admitted to Wilson Youth Hospital with primarily psychiatric problems, may be suitable for treatment at Barrett Adolescent Centre. Additionally, it is hoped that with the development of a more comprehensive Adolescent Psychiatric Service, and the more extensive use of family assessment and therapy, that earlier intervention in adolescent problems may in some instances lessen the risk of disturbed young people coming into conflict with the law, as an expression of their emotional and behavioural disturbance.

The Adolescent Clinic at Rogers Street is filling an important role as a specialist unit in the treatment of psychiatric disorders in the young and mid-adolescent, and this unit's work will be closely integrated with that of the Barrett Adolescent Centre. Both the unit and the Barrett Centre have adopted the model of a multi-disciplinary team approach, headed by a Consultant Psychiatrist, with the Barrett Centre placing an important emphasis on the role of the therapeutic milieu. The input of an educational component, through the Education Department, will be an important aspect of the Barrett Centre's work in both treatment and rehabilitation.

(b) The Court Clinic and Forensic Services

The change in role of the Division at Wilson has led to the need for redesigning and relocating the services both to the Children's Court and as a specialist unit in forensic child and adolescent psychiatry. The provision of reports to the Children's Court has always been an important function of the Division's work and it is anticipated that there will be a growing demand for contributions in other forensic areas, e.g. requests from the Office of the Public Defender or consultations from the Division's metropolitan and country clinics and from other departments, and for consultations and assessments of residents at the Sir Leslie Wilson Youth Hostel. It is planned to relocate the Court Clinic and the Forensic service in premises not too distant from that of the new Children's Court. This service will be expanded to a fully consultant service and will offer some outpatient treatment services, and this will be done without any increase in the Division's establishment.

(c) The Extension of Specialist Services to Country Areas

Over the past 12 months, visits by Consultant Child Psychiatrists and a Psychologist, at an approximate interval of 3 months have been organized both from Brisbane and from the Clinics at Toowoomba and Townsville.

Following a submission from the Paediatric Advisory Committee and in conjunction with the local hospital boards, regular visits are now made to Longreach, Rockhampton, Mount Isa and Cairns, and in the near future to Roma. In addition, in co-operation with the Division of Community Medicine, the Medical Director at the Toowoomba Clinic has made visits to other centres in the south-west including Warwick, Charleville and Goondiwindi.

Unfortunately, following the recent resignation and return to Canada of Dr Muul, these latter will be temporarily suspended until a new Medical Director is appointed, but the visits to Roma will be conducted at 3-monthly intervals from Brisbane. The Child Guidance Therapist from the Toowoomba Clinic makes regular visits to centres in the south-west region to conduct therapy on Clinic cases which otherwise would have great difficulty in commuting to Toowoomba. Much of the co-operation between the two divisions in the south-west region has been made possible by the contribution of Dr Pat Gooch, Director of Community Medicine in this area and former Medical Officer at the Toowoomba Child Guidance Clinic.

The purpose of the visits by Child Psychiatrist and Psychologist over a period of several days at 3-monthly intervals, is not only to assess and consult on cases referred but also to liaise with professionals in the area. This is aimed at building up local expertise to assist in the interim management of problems and collecting data on new cases in preparation for the specialist's visit. It also assists in developing skills for handling everyday problems met within their work.

(d) The Growth and Importance of Training Carried Out by the Division

Registrars from the Rotational Training Scheme in Psychiatry

The metropolitan clinics continue to provide eight placements in psychiatry. Statutory supervision, both individual and group, to meet the college requirements is carried out by the Division's Psychiatrists both part-time and full-time, with the additional help of Dr Helen Connell and Dr Bill Bor from the Department of Child Health, University of Queensland.

The Registrars have provided a very important and welcome input into the work of the Division's clinics and this has been very well received by professional staff in the division. Developmental psychiatry is regarded as a most important and integral component of overall training by the college.

The Queensland Training Scheme for Psychiatrists Working Towards Accreditation in Child Psychiatry at the College

This Training Scheme continues to have the approval of the College and is based on the Division's metropolitan Clinics, the Department of Child Psychiatry at the Royal Children's Hospital and the Barrett Adolescent Centre. There is a world-wide shortage of Child and Adolescent Psychiatrists which is reflected in Australia at large, as well as locally in our own State.

The College requires 2 years' post-graduate experience in Child Psychiatry for holders of the membership, who complete an approved course of training prior to receiving the Certificate of Accreditation. Fortunately, the elective fifth year can be done in Child Psychiatry and contribute towards this 2 years' requirement. It is hoped that the first intake in this elective year will be in 1984 and the Queensland Training Scheme will in future attract a regular quota of at least two trainees.

(e) Child Psychiatric Services at the Royal Children's Hospital

The Division works in close co-operation with the Royal Children's Hospital through the Institute of Child Guidance in Rogers Street and the provision of sessions by Consultant Child Psychiatrists working at the hospital.

Following on the resignation of Dr Toker, Director of Child Psychiatry, at the Royal Children's Hospital, Dr Breakey from our Division acted as Director of the Psychiatric unit until June, 1983, when he became Director of the Barrett Adolescent Centre.

The Senior Medical Director, Dr Shearer, visits the hospital twice weekly to do consultation and liaison psychiatry in Turner Ward and in the Oncology Clinic.

A Therapist and a part-time Psychologist perform sessional work at the Oncology Clinic, under the guidance of Dr Peter Smith, the Director of the Unit.

The new Psychiatry Unit at the Royal Children's Hospital, when a full-time Director is appointed and the in-patient accommodation increased to 12 beds, will provide a complementary service to the Barrett Centre in providing for the needs of a range of young adolescents as well as the younger children needing admission.

THE ELECTROENCEPHALOGRAPHY DEPARTMENT

This department is based at Rogers Street and performed 532 EEG examinations during the 12-month period. This figure, although down on the previous year, represents a higher proportion of abnormal tracings, indicating a more selective use of the technique for diagnostic purposes.

STATISTICS

The Division participates in the Mental Health statistics programme of the Health Department. Although results for the period ended 30th June, 1983, are not yet available, the number of new cases registered at each centre for the 12-month period and compiled from separate sources is as follows:—

Institute of Child Guidance	672
Wilson Youth Hospital	144
Indooroopilly Child Guidance Clinic	186
Ashgrove Child Guidance Clinic	139
Yeronga Child Guidance Clinic	256
Enoggera Child Guidance Clinic	212
Redcliffe Child Guidance Clinic	266
Nundah Child Guidance Clinic	181
Inala Child Guidance Clinic	301
Greenslopes Child Guidance Clinic	220
Woodridge Child Guidance Clinic	237
Ipswich Child Guidance Clinic	205
Toowoomba Welfare and Guidance Clinic	398
Townsville Institute of Child Guidance	509
Total	3 926

DIVISION OF DENTAL SERVICES

Director of Dental Services: G. R. McKELVEY, B.D.Sc.(Qld), F.I.C.D.
Deputy Director of Dental Services: R. G. BLAKE, B.D.Sc.(Qld) Retired 30-7-82
P. C. COMISKEY, B.D.Sc.(Qld), F.R.A.C.D.S.

INTRODUCTION

The involvement of the Division of Dental Services is described under three headings, namely:—

(a) Queensland (Hospital-Based) Dental Clinic Service;
(b) School Dental Therapists Training Scheme;
(c) Queensland School Dental Service.

(a) QUEENSLAND (HOSPITAL-BASED) DENTAL CLINIC SERVICE

Dental Hospitals and Dental Clinics—	
Dental Hospitals	3
Base Dental Clinics (including 3 attached to Dental Hospitals)	*59
Other Dental Clinics	*67
Service provided by Private Dentists in their own surgeries	3
	132

*Includes Yeronga and Taroom Clinics under construction

DENTAL STAFF

Approved establishment (Dentists)—Queensland Dental Hospitals and Dental Clinics

North Brisbane Hospitals Board—	
Brisbane Dental Hospital and Sandgate Dental Clinic	32
Children's Dental Hospital	13
Maxillo-Facial Unit	1
South Brisbane Hospitals Board—	
South Brisbane Dental Hospital, Wynnum Dental Clinic, Inala Dental Clinic	21
Queen Elizabeth II Jubilee Hospitals Board—	
Queen Elizabeth II Jubilee Hospital Dental Clinic	5
Wolston Park Special Hospital, including Challinor Centre	2
Country Dental Clinics—	
Full-time Dentists	89
Part-time Dentists	6
Part-time Consultant Specialists	9
Private Dentist providing dental services in his own surgery (Part-time)	3
Full-time	163
Part-time	18

Approved establishment (Dental Technicians)—Queensland Dental Hospitals and Dental Clinics

North Brisbane Hospitals Board—	
Brisbane Dental Hospital	28
Children's Dental Hospital	4
Sandgate Dental Clinic	2
Maxillo-Facial Unit	2
South Brisbane Hospitals Board—	
South Brisbane Dental Hospital	12
Wynnum Dental Clinic and Inala Dental Clinic	3
Queen Elizabeth II Jubilee Hospitals Board—	
Queen Elizabeth II Jubilee Hospital Dental Clinic	5
Country Dental Clinics—	
Full-time	82
Part-time	2
Full-time	138
Part-time	2

Approved establishment (Dental Assistants)—(Queensland Dental Hospitals and Dental Clinics (including Dental Sisters)

North Brisbane Hospitals Board—	
Brisbane Dental Hospital	24
Children's Dental Hospital	11
Sandgate Dental Clinic	2
Maxillo-Facial Unit	1
South Brisbane Hospitals Board—	
South Brisbane Dental Hospital	13
Wynnum Dental Clinic and Inala Dental Clinic	5
Queen Elizabeth II Jubilee Hospitals Board—	
Queen Elizabeth II Jubilee Hospital Dental Clinic	5
Country Dental Clinics—	
Full-time	85
Part-time	29
Full-time	146
Part-time	29

Nature of the Service

The Hospital-based Dental Clinic Service in Queensland provides a comprehensive general practitioner service to those persons whose economic circumstances make it difficult for them to obtain private dental care and for those, at all income levels, living in areas where no private dental practice exists.

The Service extends to the provision of certain specialist services at Dental Hospitals and at a number of larger base Dental Clinics. For example, full-time orthodontic positions exist at the three metropolitan Dental Hospitals, while part-time consultant orthodontist positions are included in the establishments of the Bundaberg, Cairns, Emerald, Gympie, Ipswich, Mackay, Nambour, Rockhampton, Southport, Toowoomba and Townsville Dental Clinics.

IMPROVEMENTS AND EXTENSIONS TO THE DENTAL CLINIC SERVICE

Actual and Proposed during 1980–1981

Improvements, including the replacement of major items of dental equipment, were made within a number of Dental Clinics during the year.

The following is a summary of the more significant building projects in progress or planned:—

Bundaberg—Working drawings are being prepared for redevelopment of an existing section of the Hospital to provide an enlarged dental clinic.

Caloundra—A new two-surgery dental clinic within the Hospital is nearing completion.

Chinchilla—Redevelopment within Hospital to provide new dental clinic facilities is nearing completion.

Cooktown—Working drawings have been prepared for a new Hospital which will include a dental clinic.

Cunnamulla—Two surgery dental clinic within new Hospital has been completed.

Dirranbandi—Sketch plans for a new Hospital, which includes a dental clinic, have been prepared.

Longreach—New building which includes a dental clinic is under construction.

Mungindi—A new Hospital which includes a dental clinic is under construction.

Normanton—New Hospital which includes a dental clinic is nearing completion.

South Brisbane—Construction of a new eleven surgery facility has commenced.

Taroom—Dental Clinic facilities are to be installed in C.W.A. building.

Thursday Island—Two surgery dental clinic to cater for Hospital Dental Service and School Dental Service is under construction.

Toowoomba—Sketch plans for a new dental clinic as part of Hospital redevelopment are under review.

Woorabinda—Sketch plans are being prepared for a new Hospital which will include a dental clinic.

Yeronga—Work is proceeding on the modification of a portion of the clinical area of the School Dental Therapy Training Centre to a Hospital Clinic.

The following initiatives during the year have resulted or will result in improved services in the areas concerned:—

(1) The involvement of the Private Dental Practitioner in Childers who, on behalf of the Isis Hospital Board treats eligible patients in his own surgery on one half-day per week under the same arrangements as operate in Miles and St. George.

(2) The appointment of an additional dentist for a six months' period to the Hughenden/Richmond Service to reduce the waiting time for treatment at those centres.

(3) The appointment of an additional dentist to the Thursday Island Hospital Board for the Itinerant Service.

Relative Analgesia

The use of Relative Analgesia in Hospital Dental Clinics will be progressively implemented, commencing with some of the larger clinics. Standardized equipment and approved techniques only will be used and completion of a training programme at a Unit being established at the QEII Jubilee Hospital Dental Clinic is required.

Commonwealth Games Emergency Dental Service

The Division of Dental Services and the Australian Dental Association co-operatively established a Dental Emergency Service for Commonwealth Games Competitors and Officials. During working hours this service operated at the QEII Dental Clinic, and after hours a roster of private practitioners and Clinic Dentists was established.

The Director or Deputy Director visited the following Centres outside the Brisbane Statistical Division during the year in connection with the Hospital and/or School Dental Services in those areas:—

Atherton
Augathella
Blackall
Cairns
Charleville
Injune
Ipswich
Isisford
Mareeba
Mitchell
Morven
Redcliffe
Roma
Southport
Surat
Tambo
Warwick
Wynnum

STATISTICS—QUEENSLAND DENTAL HOSPITALS AND CLINICS—1981–1982

Attendances—	
Adults	392 102
School Children	73 733
Pre-School Children	11 550
Total	477 385
Teeth Extracted	59 216
Restorations	165 512
Dentures	30 438
Dentures Repaired	15 336

(b) SCHOOL DENTAL THERAPISTS TRAINING SCHEME

Principal Dental Officer (Training): G. E. GRUNDY, B.D.Sc.(Qld.), F.R.A.C.D.S., F.I.C.D.

Principal, School Dental Therapists Training Centre (Brisbane): P. A. DEFTEROS, B.D.Sc.(Qld.)

Principal, School Dental Therapists Training Centre (Townsville): R. J. PYLE, B.D.Sc.(Qld.)

Senior Tutor Dental Officers:

G. B. BERESFORD, B.D.Sc.(Qld.)
D. R. EXTON, B.Sc., Ed.(Qld.), B.D.Sc.(Qld.)
D. MATHEWS, B.Ch.D.Sc.(Leeds)
L. H. McALLAN, B.D.Sc.(Qld.), M.Sc.(Paedodontics, Univ. of London)
R. G. B. SMITH, B.D.Sc.(Qld.)
P. F. WOOD, B.D.Sc.(Durham), D.D.P.H.(London)

A total of 38 School Dental Therapists completed the course in February, 1983. One of the graduates of the Brisbane Centre was trained for the Northern Territory School Dental Service.

First-year student enrolments at 30-6-82—	
Brisbane	35
Townsville	10
Second-year student enrolments at 30-6-83—	
Brisbane	32
Townsville	12

The co-operation of lecturers from other Departments and Institutions is acknowledged. Organized visits were made by students of both the Brisbane and Townsville Centres to various other Institutions concerned with the welfare of children.

The Annual Open Day was conducted at both the Brisbane and Townsville Centres on Wednesday, 1st September, 1982.

An Orientation Programme was conducted for new Field Dental Officers during January, 1983. A programme of one-day In-Service Training for field staff was continued this year. Field staff in Toowoomba, the Gold Coast, Ipswich, North Coast and Brisbane have participated to date and arrangements have been made to deliver this programme at Bundaberg, Rockhampton, Mackay, Townsville and Cairns. The course content emphasized periodontal health and emergency resuscitation procedures. The delivery of the lectures has involved Senior Staff from both the Field Service and the Training Scheme.

Another joint involvement of Training and Field has been the participation in Careers Markets.

Mr S. M. Walsh, B.D.Sc., F.I.C.D., a Brisbane private dental practitioner and member of the Queensland Dental Board, was the External Examiner for 1983 at both the Brisbane and Townsville Training Centres.

(c) QUEENSLAND SCHOOL DENTAL SERVICE (FIELD SERVICE)

Principal Dental Officer (Field Services): W. T. VIDERONI B.D.Sc.(Qld.), Grad.Dip.Bus.Admin.(Q.I.T.), A.F.A.I.M.

Orthodontist: R. S. GREENHILL, M.D.Sc.(Qld.)

Preventive Research and Planning Officer: T. M. McENIERY, B.D.Sc.(Qld.)

Regional Dental Officer (Northern): G. S. STERNBERG, B.D.Sc.(Qld.), Dip.D.H.(Qld.)

Regional Dental Officer (Central): A. G. PURCELL, B.D.Sc.(Qld.)

Regional Dental Officer (Southern): T. M. CONDON, B.D.Sc.(Qld.)

Dental Officers (approved establishment)	56
School Dental Therapists (approved establishment)	286
Dental Assistants (approved establishment)	209

During the 1982–83 Financial year, the Field Service made further progress towards attaining its goal of total coverage of all primary schools in Queensland.

It is anticipated that total coverage of primary schools will be achieved during the 1983–84 financial year, subject of course to available funds.

The dental health of Queensland Primary School Children has been progressively improving during the recent years which has allowed the ratio of patients to operator to increase. This improvement has reduced the total manpower needs of the Service considerably from that originally estimated.

Full advantage of this increased student:operator ratio has been achieved by the extensive use of Mobile Dental Clinics and by increasing static clinic patient loads utilizing a "feeder school" system.

At 30th June, 1983, 122 fixed clinics, 103 mobile road clinics and two mobile rail clinics were in operation throughout the State.

A new service has been introduced into the Gulf of Carpentaria and Cape York Peninsula area utilizing portable equipment. This area has not previously been covered by the School Dental Service.

A private practitioner was selected to carry out dental treatment for primary children in the Allora-Clifton area on a trial basis during the financial year, and a similar programme is to be conducted at Boonah in the near future.

The number of Hospital dental officers employed on a part-time basis has been increased and dentists from the following towns now are involved in the School Dental Service:—

Bowen
Cairns
Charleville
Charters Towers
Collinsville
Dalby
Ingham
Innisfail
Longreach
Mareeba
Mitchell
Mossman
Mount Isa
Proserpine
Roma
Winton
Yeppoon

The 122 fixed clinics are situated at the following schools throughout the State:—

Ayr
Ayr East Primary School

Beaudesert
Beaudesert Primary School

Beenleigh
Beenleigh Primary School

Bowen
Bowen Primary School

Brisbane
Acacia Ridge Primary School
Aspley Primary School
Aspley East Primary School
Boondall Primary School
Bracken Ridge Primary School
Camp Hill Primary School
Cannon Hill Primary School
Carole Park Primary School
Eight Mile Plains Primary School
Geebung Primary School
Grovely Primary School
Inala Primary School
Inala West Primary School
Indooroopilly Primary School
Jindalee Primary School
Macgregor Primary School
Manly West Primary School
Mitchelton Primary School
Morningside Primary School
Mount Gravatt East Primary School
Nashville Primary School
Nudgee Primary School
Nundah Primary School
Our Lady of the Angels Convent School, Wavell Heights
Our Lady of Lourdes Convent School, Sunnybank
Richlands East Primary School
Rochedale Primary School
Runcorn Primary School
St. Marks Convent School, Inala
St. Williams Convent School, Grovely
Sandgate Primary School
Serviceton Primary School
Serviceton South Primary School
The Gap Primary School
Virginia Primary School
Wynnum Primary School
Wynnum North Primary School

Bundaberg
Bundaberg West Primary School
Norville Primary School
Walkervale Primary School

Caboolture
Caboolture Primary School

Cairns
Balaclava Primary School
Cairns North Primary School
Cairns West Primary School
Edge Hill Primary School
Parramatta Primary School

Charleville
Charleville Primary School

Charters Towers
Charters Towers Primary School

Dalby
Dalby Primary School

Gladstone
Gladstone South Primary School
Gladstone West Primary School

Gold Coast
Benowa Primary School
Biggera Waters Primary School
Broadbeach Primary School
Burleigh Heads Primary School
Currumbin Primary School
Guardian Angels Convent School, Southport
Labrador Primary School
Musgrave Hill Primary School
Southport Primary School

Ingham
Ingham Primary School

Ipswich
Brassall Primary School
Bundamba Primary School
Goodna Primary School
Ipswich East Primary School
Ipswich North Primary School
Leichhardt Primary School
Raceview Primary School
St. Mary's Convent School, Ipswich
Sacred Heart Convent School, Booval
Silkstone Primary School

Mackay
Mackay North Primary School
Victoria Park Primary School

Mareeba
Mareeba Primary School

Maryborough
Maryborough Central Primary School
Maryborough West Primary School

Mount Isa
Barkly Highway Primary School
Happy Valley Primary School
Sunset Primary School
Townview Primary School

Pine Rivers
Albany Creek Primary School
Ferny Hills Primary School
Kallangur Primary School
Lawnton Primary School
Strathpine Primary School

Proserpine
Proserpine Primary School

Redcliffe Peninsula
Clontarf Beach Primary School
Humpybong Primary School
Kippa-Ring Primary School
St. Bernadettes Convent School, Scarborough
Scarborough Primary School

Redlands
Alexandra Hills Primary School
Birkdale Primary School
Capalaba Primary School
Cleveland Primary School

Rockhampton
Allenstown Primary School
Berserker Street Primary School
Frenchville Primary School
Park Avenue Primary School

Roma
Roma Primary School

Slacks Creek
Slacks Creek Primary School

Springwood
Springwood Road Primary School

Sunshine Coast
Caloundra Primary School
Maroochydore Primary School
Nambour Primary School

Toowoomba

- Harlaxton Primary School
- Rangeville Primary School
- Toowoomba East Primary School
- Toowoomba North Primary School

Townsville

- Townsville Central Primary School
- Hermit Park Primary School
- Wulguru Primary School

Wide Bay

- Pialba Primary School

Woodridge/Kingston

- Harris Fields Primary School
- Kingston Primary School
- Woodridge Primary School
- Woodridge North Primary School

Yeppoon

- Yeppoon Primary School

Preventive Dentistry and Evaluation

The caries experience in the permanent teeth of Queensland children, as shown in the accompanying Table, continues to show the steady decline that has characterized the years since 1976 when the evaluation system commenced. The age 12 score for 1982 of teeth affected by decay (DMF index) was 3·1 for calendar 1982, a figure so low for a non-fluoridated area that it would have been inconceivable 10 years ago. In Queensland the age DMF goals for 1982 have been significantly exceeded and this augurs well for the eventual attainment of the low zone of caries experience as defined by the World Health Organization.

However, this steady annual (and in summation quite dramatic) improvement should not obscure the fact that there is still a considerable amount of decay in the population. As was remarked at a Community Dentistry Conference in Melbourne in late 1982, a chronic disease which affects 80 per cent of the 12-year-old population (Queensland State figures) would in any other context be a cause for grave public concern. It would be a mistake to interpret the present and improving picture as final success or even to assume that regression is impossible.

Added weight to such an attitude is given by consideration of the decay rates in the deciduous dentition (see Table). As noted in previous reports, the dental state of children entering Grade 1 each year has been observed closely in view of reports from clinicians seeing increased decay rates in younger pre-school children. In 1982, this improving trend appears to have levelled off and the df index and percentage with zero decay experience are identical with 1981. Consistent with the remarks above on the permanent dentition there is still a significant problem to be handled. A df of 2·46 produced by the 53·5 per cent of the 5-year-old population who have clinical caries translates to a mean df for this segment of the population of 4·6. This figure is only marginally below the 5·0+ decay affected first teeth which has been consistent for the last 70 years. In simpler terms, more than 50 per cent of the 5-year-olds are almost as bad as they ever were.

To combat this problem, a major effort was expended during the year in producing audio-visual materials suitable for dental health education to upper grade primary children and also relevant to health education initiatives to such groups as expectant mothers and pre-school mothers groups. Kits have been distributed throughout the State, making adequate resource material immediately available at local level.

In the same vein, similar kits slanted to the specific needs of the Aboriginal Health Workers have been prepared for, and in collaboration with, the Division of Aboriginal Health. A rewrite of the dental section in the Maternal and Child Welfare publication "Growing" is now in publication. Similar and consistent material is being incorporated in a new pamphlet on pre-school child dental health being prepared in collaboration with the Division of Health Promotion.

An *ad hoc* panel comprising representatives from the Division of Dental Services, the Division of Health Promotion and the Australian Dental Association has proved a singularly successful instrument in updating and upgrading dental health information material.

An adult data collection system was put into operation in clinics of the South-West Queensland area. Results expressed in age groupings recommended by the World Health Organization are shown in accompanying Table. Detailed interpretation of this data is at this stage unwise for a number of reasons. Subjects of the study are in the main means test selected, portions of the area chosen present peculiar difficulties of accessibility to dental care and numbers in the age groupings are relatively small. In general, a tendency to increased tooth retention can be determined in comparison with the very meagre Australian adult dental data available. The increase in DMF through the age groups (8·66 at 15–19 to 13·38 at 20–24) and in D factor (2·25 at 15–19 to 3·73 at 20–24) could give some grounds for rethinking the traditional concepts of the peak years for caries activity.

The present exercise was essentially a pilot study testing a methodology and providing data on which sample sizes for an eventual adult survey can be determined. From experience gained, a State-wide system of adult data collection will be instituted in Hospital-based dental clinics during the coming year which will provide an on-going data base to measure changes in dental status and dental behaviour of this segment of the adult population. The collection of caries data has been straight forward. Periodontal (gum disease) data has continued to present problems, principal among which was the fact that the "final" stage of the World Health index which was adopted for the Queensland study was further modified by the World Health Organization during the course of the Division's study. The inability of the World body to settle on an Internationally acceptable index presents considerable problems to such a project as the Division is currently undertaking.

1978–1982 CARIES STATUS IN THE DECIDUOUS DENTITION

Age	Year	Number of Children	d	f	df	% with Zero df Teeth
5	1978	5 284	2.13	0.58	2.71	41.84
	1979	9 480	2.10	0.59	2.69	43.57
	1980	11 364	2.05	0.61	2.67	44.23
	1981	14 499	1.92	0.52	2.45	46.80
	1982	16 471	1.88	0.57	2.46	46.52
6	1978	10 887	1.70	1.19	2.90	36.97
	1979	18 370	1.65	1.30	2.95	37.49
	1980	21 010	1.43	1.46	2.89	39.09
	1981	26 427	1.47	1.26	2.74	40.97
	1982	30 294	1.32	1.31	2.64	42.04
7	1978	10 735	1.25	1.76	3.01	31.76
	1979	18 587	1.24	1.77	3.01	31.89
	1980	21 410	1.01	2.01	3.07	32.14
	1981	26 534	1.04	1.87	2.93	35.44
	1982	30 841	0.93	1.96	2.90	35.85
8	1978	10 023	1.18	2.00	3.18	25.67
	1979	16 786	1.11	1.92	3.03	27.76
	1980	22 337	0.89	2.16	3.06	28.44
	1981	27 583	0.89	2.19	3.08	29.61
	1982	30 460	0.78	2.26	3.06	31.31
9	1978	8 887	1.01	1.83	2.83	26.11
	1979	15 493	1.00	1.81	2.82	26.92
	1980	21 201	0.75	2.05	2.81	27.86
	1981	26 872	0.76	2.06	2.82	28.69
	1982	31 194	0.66	2.21	2.88	29.66
10	1978	8 229	0.69	1.40	2.10	36.18
	1979	14 427	0.70	1.35	2.05	37.23
	1980	18 894	0.51	1.51	2.09	36.88
	1981	25 989	0.56	1.53	2.10	37.73
	1982	31 908	0.48	1.69	2.18	37.59
11	1978	7 427	0.40	0.77	1.16	56.56
	1979	12 870	0.40	0.74	1.15	56.96
	1980	17 436	0.33	0.82	1.16	56.73
	1981	24 733	0.32	0.86	1.20	56.76
	1982	31 106	0.29	0.94	1.25	55.87

STATISTICS—SCHOOL DENTAL SERVICES—1982–1983

Total Attendances	955 588
Number of Courses of Treatment	256 533
Topical Fluoride Applications	236 895
Restorations	274 450
Extractions deciduous teeth	31 012
Extractions permanent teeth due to caries	1 131
Extractions permanent teeth for orthodontic reasons	2 980
Endodontic and Similar Treatments	13 020

1978–1982 CARIES STATUS IN PERMANENT DENTITION

Age	Year	Number of Children	D	M	F	DMF	F/DMF	% with Zero DMF Teeth	% with Zero DMF or df Teeth	% with Zero D or d Teeth
5	1978	5 284	0.07	..	..	0.07	6.63	95.67	41.22	47.22
	1979	9 480	0.06	..	..	0.06	6.45	96.12	43.05	48.74
	1980	11 364	0.04	..	..	0.04	6.27	97.01	43.84	49.58
	1981	14 499	0.03	..	..	0.03	6.92	97.56	46.40	51.38
	1982	16 471	0.03	..	..	0.03	6.72	97.77	46.17	51.96
6	1978	10 887	0.31	..	0.09	0.40	21.87	80.38	34.13	46.27
	1979	18 370	0.22	..	0.07	0.29	23.40	84.59	35.24	48.97
	1980	21 010	0.19	..	0.06	0.25	24.38	86.31	37.08	51.96
	1981	26 427	0.16	..	0.04	0.20	20.84	88.60	39.25	51.97
	1982	30 294	0.14	..	0.04	0.18	21.89	89.62	40.40	54.75
7	1978	10 735	0.60	0.01	0.44	1.05	42.09	55.67	24.97	44.17
	1979	18 587	0.48	..	0.35	0.84	41.68	62.39	26.47	46.90
	1980	21 410	0.41	..	0.30	0.72	42.24	65.86	27.30	49.21
	1981	26 534	0.38	..	0.24	0.63	39.11	69.31	30.68	51.94
	1982	30 841	0.31	..	0.20	0.52	39.13	73.33	31.73	53.39
8	1978	10 023	0.73	0.02	1.03	1.79	57.58	35.81	16.39	41.05
	1979	16 786	0.64	0.01	0.82	1.49	55.18	42.08	18.84	43.56
	1980	22 337	0.49	0.01	0.75	1.25	59.87	48.46	20.67	48.44
	1981	27 583	0.49	..	0.60	1.10	54.97	52.74	22.54	48.47
	1982	30 460	0.40	..	0.55	0.96	57.51	57.14	24.80	51.75
9	1978	8 887	0.79	0.06	1.51	2.36	64.04	25.14	12.33	41.98
	1979	15 493	0.69	0.03	1.31	2.05	64.11	30.31	14.30	43.60
	1980	21 201	0.53	0.03	1.27	1.84	69.04	33.97	15.87	48.79
	1981	26 872	0.49	0.02	1.06	1.58	67.03	39.89	17.85	49.74
	1982	31 194	0.41	0.01	0.97	1.40	69.17	44.66	19.86	53.26
10	1978	8 229	0.80	0.10	2.00	2.98	67.33	18.48	10.54	43.88
	1979	14 427	0.81	0.08	1.75	2.65	66.11	22.55	12.41	44.98
	1980	18 894	0.59	0.06	1.71	2.37	72.35	25.49	13.12	50.34
	1981	25 989	0.56	0.04	1.51	2.13	71.11	29.48	15.77	51.45
	1982	31 908	0.45	0.03	1.37	1.86	73.84	35.48	18.34	55.61
11	1978	7 427	1.08	0.15	2.45	3.67	66.56	15.24	10.26	45.54
	1979	12 870	0.99	0.13	2.16	3.30	65.59	17.59	12.16	46.68
	1980	17 436	0.75	0.12	2.20	3.09	71.19	18.86	12.58	52.25
	1981	24 733	0.70	0.08	1.98	2.77	71.26	22.40	14.78	53.38
	1982	31 106	0.55	0.06	1.85	2.47	74.76	26.16	17.13	57.72
12	1978	4 408	1.43	0.23	3.03	4.69	64.55	11.30	8.94	42.60
	1979	8 218	1.27	0.18	2.65	4.12	64.41	14.01	11.52	46.06
	1980	11 119	0.95	0.20	2.69	3.85	69.79	14.59	11.68	51.96
	1981	16 215	0.85	0.15	2.49	3.51	70.96	16.40	12.83	52.97
	1982	19 025	0.71	0.09	2.33	3.15	74.00	20.19	15.89	57.69
13	1978	835	1.82	0.29	3.50	5.62	62.28	7.31	6.59	37.13
	1979	1 392	1.77	0.33	3.00	5.11	58.70	11.35	9.69	41.03
	1980	1 934	1.33	0.31	3.29	4.94	66.69	9.30	8.22	45.92
	1981	2 722	1.21	0.26	3.06	4.55	67.33	11.35	9.88	48.09
	1982	2 978	1.01	0.19	2.83	4.05	69.92	14.13	12.45	53.56
14	1978	168	2.17	0.45	4.63	7.25	63.79	4.17	4.17	39.88
	1979	284	2.21	0.61	4.36	7.19	60.67	5.98	5.28	36.98
	1980	349	1.62	0.61	4.21	6.44	65.30	6.30	6.01	41.55
	1981	464	1.49	0.42	3.87	5.79	66.87	10.99	9.48	45.05
	1982	533	1.18	0.37	3.68	5.25	70.13	11.06	10.13	49.16

CARIES EXPERIENCE OF DENTATE ADULTS ATTENDING HOSPITAL DENTAL CLINICS IN SOUTH-WEST QUEENSLAND

Age Group	Number Examined	No. Teeth Present	Decayed	Indicated for Extraction	Missing	Filled	DIMF
15	28	27.54	1.36	.04	.36	5.54	7.29
16	28	27.61	1.86	.32	.86	5.36	8.39
17	41	27.61	2.41	.10	.59	5.22	8.32
18	33	27.88	3.09	.36	.67	5.52	9.64
19	29	27.9	2.28	.45	.76	6.9	9.59
20/24	128	27.65	3.73	.8	2.18	6.68	13.38
25/29	85	26.12	2.96	.53	3.98	9.71	17.18
30/34	65	25.29	2.23	.49	5.05	8.97	16.74
35/39	48	24.50	1.65	.33	5.71	11.42	19.10
40/44	40	21.05	1.53	1.40	9.26	8.33	20.53
45/49	26	20.54	1.08	.11	9.57	8.00	18.78
50/54	28	18.54	.94	1.46	12.36	7.28	22.04
55/59	29	17.07	1.13	.45	13.69	7.65	22.93
60/64	17	15.76	.94	.59	15.65	5.82	23.00

DIVISION OF GERIATRICS

Director: L. J. MYKYTA, M.B., B.S.(Univ.ofAdel.), M.R.C.P.(U.K.), F.R.A.C.P., F.A.C.R.M. (1-7-82 to 4-2-83)

The Queensland Department of Health has been the responsible Department for the inter-related health and social aspects of aged care for over fifty (50) years. The Division of Geriatrics was created in 1961 to develop health-related facilities for the aged. Over the last two (2) decades, home care services for the aged have been developed and these services are now widely developed as part of the community health services in Queensland under the responsibility of the Division of Community Medicine.

There have been many reports on Care of the Aged in Australia over the last decade and all have discussed the rationality of integrating services for the aged to allow the aged person efficient access to a complex range of services.

A Departmental Working Party in May, 1983, completed a review of various reports on aged care, including the Queensland Care of the Aged Report and the recommendations contained therein.

The report of the Working Party was considered by State Cabinet in June, 1983, and the matters of aged care policy it contained were adopted and approval granted to implement the various recommendations.

The Department of Health is aware of the present increase in the ageing population in Australia and the resulting implications for aged care services. Implementation of the various recommendations from the Working Party Report will ensure that the Department's services are prepared to meet this increased requirement for assistance.

The redevelopment of Eventide Sandgate is a good example of the high quality care being provided for the aged in Queensland. Stage II of this project was officially opened by His Royal Highness The Prince of Wales on 11th April, 1983, and sets a new standard of accommodation for the aged. Stage II was specially designed by the Department of Works to specifications determined by the Department of Health to care for the aged in family sized units.

There is consensus that care of the aged will be a major target of the health service over the next two (2) decades and that care of the very old will be a special problem we face now and will continue to face for the remainder of the twentieth century.

SOCIAL WORK

Staffing

With the increasing numbers of elderly people and the growing emphasis on "care of the aged", the two (2) social workers in the Division have experienced increasing demands for service. The arrangement whereby a social worker was seconded from Eventide, Sandgate, in exchange for the social work associate from the Division, has been to the advantage of both organizations and each staff member.

Consultation

The social workers continued to provide a specialized consultative service relating to the needs of elderly people and available resources, as well as to methods and programmes by which unmet needs could be accommodated. The service operated at long-term and crisis levels and was widely used by families and their elderly relatives and statutory and voluntary organizations. Problems associated with the care of confused elderly people who tend to wander, the limited number of stress relief beds, the scarcity of low cost accommodation for independent living, and the special needs of ethnic people, were of particular concern.

The Senior Social Worker responded to requests from three (3) Senior Citizens' Centres to join a panel to interview applicants for a welfare officer's position.

Education

Education is a most important part of the work of the Division. The Social Workers were fully extended in meeting the ever-increasing requests to speak at seminars, including numerous Pre-Retirement Seminars, in-service courses for nurses, the Post-Basic Course in Geriatric Nursing and Technical and Further Extension Programmes. They also spoke to secondary and tertiary students and a wide range of community groups. On of the social workers was a member of a panel which judged entries by High School students in a competition on ageing sponsored by the Division of Health Promotion.

Applications for Admission to Departmental Accommodation for Aged People

The procedures involved with assessing elderly applicants for admission to Departmental institutions in the Metropolitan area and with ensuring that they were offered accommodation which best met their needs, were further refined. One social worker monitored all applications and liaised constantly with hospital—and/or community-based staff and the Departmental Services Branch.

Committee Work

The Senior Social Worker was active on Committees of the Queensland Council on the Ageing, the Australian Association of Gerontology (Queensland Branch), the Nurses' Rest Home, the Red Cross and the Brisbane College of Advanced Education. She was also a member of Departmental Working Parties concerned with "care of the aged".

Conferences

The Senior Social Worker attended the National Workshop of the Australian Association of Gerontology in Sydney and the Second Regional Congress of the Asia/Oceania Region of the International Association of Gerontology in Singapore.

FLYING SURGEON SERVICE

LONGREACH

Flying Surgeon: R. G. FINEMORE, B.D.Sc., M.B., B.S., F.R.C.S., F.R.A.C.S.

Medical Officer (Anaesthetist): M. J. WOHLFAHRT, M.B., B.S. (to 2nd January, 1983)
C. M. LILLEY, M.B., B.S. (from 3rd January, 1983)

ROMA

Flying Surgeon: A. C. M. PAUL, M.B., B.S., F.R.A.C.S.

Medical Officer (Anaesthetist): S. CERUTTI, M.B., B.S., D.A. (from 10th July, 1982 to 31st December, 1982)
M. PETROVIC, M.B., B.S., F.F.A., R.A.C.S. (from 17th January, 1983)

The Flying Surgeon Service was established in Longreach in 1959 and the Service expanded by the establishment of a second base at Roma in 1980. Residents in the wide areas of Central, Western, North-Western and South-Western Queensland are benefited by this specialist surgical service.

The Service provides routine specialist surgical visits for consultations, surgical operations, follow-up care and an "on-call" service to attend to surgical emergencies to all centres visited. During the year, visits by the Flying Surgeon to Mount Isa were ceased and services to Moranbah and Dysart commenced.

Centres visited are:—

(i) From Longreach Base—Cloncurry, Julia Creek, Richmond, Winton, Barcaldine, Alpha, Aramac, Hughenden, Collinsville, Moranbah and Dysart;

(ii) From Roma Base—Emerald, Cunnamulla, Miles, Taroom, Goondiwindi and St. George.

Year	Miles Flown		Consultations		Operations			
					Longreach		Roma	
	Longreach	Roma	Longreach	Roma	Routine	Emergencies	Routine	Emergencies
1977	70 568	. .	2 217	. .	899	56	. .	. .
1978	74 890	. .	2 282	. .	1 039	46	. .	. .
1979	76 523	. .	2 223	. .	853	53	. .	. .
1980	83 281	. .	2 242	. .	898	58	. .	. .
1981–82	73 747	47 432	2 704	2 845	1 136	91	848	87
1982–83	63 825	48 652	2 318	2 765	932	76	958	63

DIVISION OF COMMUNITY MEDICINE

Director: M. CHEONG, M.B., B.S. (Qld.), F.R.C.P.(Edin.)

Senior Social Worker: E. P. DOBBYN, B.Soc.Wk.(Qld.)

Principal Community Health Nurse:
G. McCHESNEY-CLARK, S.R.N., Dip. Public Health Nursing, F.C.N.A. (to 6-2-83)
B. MURRAY, (from 7-4-83)

Assistant Principal Community Health Nurse: B. MURRAY, S.R.N., Dip. Nursing Administration, Dip. Applied Science Community Health Nursing, F.C.N.A. (to 6-4-83)

Nurse Educator: G. A. HINTON, S.R.N., Dip.N.Ed., F.C.N.A.

Although no new Community Health Services Centres were established in 1982–83, planning was undertaken for a new Centre at Gladstone and for Health Facilities at Middlemount and Tieri. Construction is now under way on the Centre at Gladstone which will cost to the order of $1.5m and will provide facilities for services presently established in Gladstone, for visiting services provided by various Divisions and Branches from Rockhampton and Brisbane, as well as areas for Speech Therapy, Physiotherapy and Occupational Therapy which will be utilized for community-based service needs and also to meet the needs of patients from Gladstone Hospital.

The Mackay Community Health Services Centre was relocated during 1982–83 in the old Town Hall which has been classified as a historical building and restored by the Mackay City Council. A number of other Community Health Services Centres underwent extensive maintenance during 1982–83. A new minor operating theatre table and theatre light were provided for the Inala Centre and new P.A.B.X. switchboards installed at Redcliffe, Woodridge and Inala Centres.

Three full-time therapists have been provided by the Department of Health for the provision of therapy services to children in schools.

The educative role of Divisional staff is extensive and covers individual and group activity. A number of Centres in Brisbane and the country now take students from various professions for placements during their initial courses. Placements are also provided for students from the Post-Basic Geriatric Nursing Course and from the Diploma in Applied Science—Nursing Courses. A permanent position is retained for a Family Medicine Programme Trainee at the Inala Centre.

Nurses undertaking their general training either through the Queensland Institute of Technology Diploma in Nursing or the hospital-based General Nursing Certificate courses visit Centres as a segment of their community training. Community Health Nurses also provide lectures to students at some Training Hospitals.

The Division of Community Medicine has continued its strong community health education role and Centre staff are involved in many health education activities, arising both from specific State-wide or local programmes sponsored by the Division of Health Promotion, or from their identification of local health needs.

Divisional staff are also involved in providing reports on structural alterations and to respond to requests for equipment, arising from applications submitted under the Patients Aids for Disabled Persons programme.

The Central Statistical Unit is now providing assistance with the processing of medical records information, and additional manpower has been provided for coding. As from 1st July, 1982, all Community Health and Community Home Care Centres have been utilizing the records forms.

The absence at this time of data for the whole of 1982–83 precludes comparison with levels of service provided by the Division in previous years. New referrals recorded for the 6-month period to 31st December, 1982 (8 766), have indicated a significant increase on previous years, if this pattern is maintained over the full 12-month period. This growth in service utilization has eventuated whilst the service has continued to advertise its presence by word of mouth only and by co-operation with private medical practitioners and the public hospital system. This increased utilization is further indication of the recognition afforded the Division of Community Medicine and its contribution to the overall health care of the community.

COMPARISON OF AVAILABILITY OF SERVICES FOR SELECTED CLIENT GROUPS IN METROPOLITAN AND PROVINCIAL AREAS

Problem/Care group	Metropolitan e.g. Brisbane			Provincial town e.g. Roma		
	Supportive		Curative	Supportive		Curative
	OP	IP	IP and OP	OP	IP	IP and OP
Mother/Child	Maternal and Child Health	Maternal and Child Health residential service	Childrens Hospital	Maternal and Child Health	None available	Base Hospital
Child Psychiatry	Youth Welfare and Guidance	None available (under construction)	Youth Welfare and Guidance Childrens Hospital Psychiatric Unit	Division of Community Medicine with visits from Youth Welfare and Guidance	None available	Division of Community Medicine with visits from Youth Welfare and Guidance
Adult Psychiatry	Division of Psychiatric Services Clinics Division of Community Medicine (D.C.M.)	Psychiatric Services Hospitals (Wolston Park)	Psychiatric Services Hospitals (Barrett Centre) Psychiatric Units of General Hospitals	Division of Community Medicine with visits from Division of Psychiatric Services	None available	Division of Community Medicine with visits from Division of Psychiatric Services
Intellectually Handicapped	Assessment Clinics etc. (Intellectual Handicap Services)	Training Centres Alternate Living Programmes (Intellectual Handicap Services)	Specialist Hospital Units	Division of Community Medicine with visits from Intellectual Handicap Services	None available	Base Hospital
Geriatric Services	Division of Community Medicine (D.C.M.)	Eventide Nursing Annexes	General Hospital, Specialist Units	Division of Community Medicine	Nursing Annexe	Base Hospital
Acute Illness	Division of Community Medicine Hospital support services	Not required	General Hospital	Division of Community Medicine Hospital support services	Not required	Base Hospital
Chronic Illness/ rehabilitation	Rehabilitation units Division of Community Medicine	Rehabilitation Units	General Hospital	Division of Community Medicine Hospital support services	Nursing Annexe	Base Hospital
Alcoholism	Alcohol and Drug Dependence Services Specialist Unit in General Hospital Division of Community Medicine	Alcohol and Drug Dependence Services (Wacol Rehabilitation Clinic)	Alcohol and Drug Dependence Services Specialist Unit in General Hospital	Division of Community Medicine	None available	Base Hospital
Health Education	Health Education and Information Division of Community Medicine	Not required	Not required	Division of Community Medicine with visits from Division of Health Education and Information	Not required	Not required
School Health Services (Screening only)	School Health	Not required	Not required	Division of Community Medicine with visits from School Health	Not required	Not required

SOCIAL WORK

During the past year, 55 social work positions have been occupied in Community Health and Community Home Care Centres. One position, devolved from the Continuing Care Service, was re-allocated as an additional one for the rapidly expanding Gympie-Noosa area.

It is pleasing to report that Emerald and Gladstone Centres were, for some period, without social work services, and have now attracted new graduates who have settled in well. This Division has been able to make a positive contribution to the employment of new graduates from both Queensland and James Cook Universities, eight having been appointed to vacant positions in 1983.

An Acting Senior Social Worker, based in Brisbane, has assumed supervisory responsibility for the Metropolitan, near-Metropolitan and North Coast Centres, the Gold Coast Senior supervising South-East Queensland Centres staff and the Acting Senior in Townsville co-ordinating the work of social workers in that city as well as in Cairns, Charters Towers and Bowen.

Within the last few months we have accepted with regret the withdrawal of experienced social work associates from several Centres. These associates, on the establishment of Psychiatric Services, have given outstanding service over a period of several years. Losing them has imposed an extra burden of welfare and support duties on social workers and nursing staff in Centres where they are already fully extended.

Most Centres, particularly those in areas with a predominantly young population, are reporting that the demand for services is increasing as a result of the present deteriorating socio-economic situation. Problems relating to, or resulting from, unemployment and less stable family situations are prevalent, particularly where they concern one-parent families and adolescents. Centres where problems relating to elderly clients formerly predominated are now finding that the age profile is changing. Nevertheless, work with the elderly continues to be a significant part of most caseloads as does the follow-up and support in the community of discharged psychiatric patients of a wide age range.

Although the emphasis continues to be on a casework service by social workers, initiatives are taken wherever practicable to develop groups for clients with specific problems or to give professional support to community groups where needed. Examples of such group involvement would be with Parent Effectiveness Training, Al-Anon, G.R.O.W., Family Therapy, The Association for Loss and Grief, Volunteer Training and Retirement Counselling, and the Parent Support Groups for Sudden Infant Death Syndrome parents.

In this latter area the counselling and support given to parents have, of necessity, become more intensive with a regular notification of cases from diverse areas of the State. Referral procedures from Department Pathologists continue to be most satisfactory and liaison maintained with Police Officers, Ambulance Bearers and Maternal and Child Health Nurses as first persons in contact. Social Workers have again been involved in in-service programmes for Community Health Nurses and Maternal and Child Health Nurses on the subject of S.I.D.S. and have spoken to professional, community and Service Club groups.

Appreciation is expressed to the Department for the obvious recognition that professional knowledge and skills need to be maintained and continually updated and, to that end, approval has been given for attendance at a broad variety of appropriate courses and workshops. However, most social workers do also attend in their own time, evening and weekend activities relevant to their work and a number are taking advantage of S.A.R.A.S. to acquire further formal qualifications.

With Divisional approval, regional meetings on a quarterly basis have, this year, begun in the north and south Metropolitan areas, the North Coast and Toowoomba, and are already proving their worth not only in affording training and educational opportunities for both new and established staff, but also in creating a greater sense of identity with the Department.

In the past year, social workers have again willingly co-operated with the Universities, Colleges of Advanced Education and High Schools in providing supervised training and work experience placements for Undergraduate, Social Welfare and Secondary School Students. Where undergraduates are concerned, it is noted that these placements are a valuable means of recruitment for new staff; invariably those who have had a training placement in a Community Health Centre apply for employment on graduaion.

The Senior Social Worker, Head Office, continues to carry advisory and consultative responsibility for Ministerial and Departmental referrals, consultations with Directors of Divisions without Social Workers, recommendations in relation to staff establishments and appointments in Hospital Social Work Departments, and liaison and consultation with Social Workers in Country Hospitals. The Senior Social Worker is a Departmental representative on the University Social Work Faculty Board and the Homeless Persons Advisory Committee and an executive member of the Queensland Council on the Ageing, the Red Cross Hospital Services Committee and the Queensland Sudden Infant Death (S.I.D.S.) Research Foundation.

Senior Social Worker positions in the Division are on the establishment at:—

Head Office—Eileen Dobbyn;
Metropolitan and near North Coast—Barbara Richardson;
Gold Coast—Roslyn Eyles;
Townsville—Hilary Dickinson.

NURSING

Community Health Work

Nursing staff establishment	176
Nursing staff appointments as at 30th June, 1983	168

The year to the end of June, 1983, has been one of continuing and increasing demands on nursing staff. Demands on staff resources have been, at best, constant, while considerable work increases have been noted in several areas.

Client case work must receive priority in executing workload, though many staff accept the challenge of health promotion and maintenance instruction, through the medium of work with community groups. Time restraints prevent the meeting of further needs in preventive work. The filling, early in the financial year of a number of positions which have been vacant for some time, was a most welcome move, relieving pressure on many staff who had responded so well by extending themselves to meet the extra demands.

At intervals during the year, small group and individual work has been done on developing standards of practice for Nurses. Senior Nurses have been involved in a similar exercise in relation to their role.

The most notable change in the nursing component of the service was the transfer on promotion of Miss Glenda McChesney-Clark. Miss McChesney-Clark, who is now Assistant Chief Nursing Officer, Nursing Services, was the first appointee to the position of Principal Community Health Nurse, and pioneered the development of many initiatives in the service. Her transfer was followed by the appointment of the (then) Assistant Principal Community Health Nurse to the resulting vacancy.

Health Examinations in Schools

The role of the School Health Nurse is embraced by 34 Community Health Nurses in Centres in certain country and one near-metropolitan town. These nurses work within the policies of the School Health Service. This activity is an appropriate inclusion in the role of the Community Health Nurse resembling Community Health as practised in other parts of the world. It is of interest to note that, during the current year, several of the nurses carrying out this work have participated in programmes for training in developmental assessment of children. This allows an even fuller screening of children in Pre-schools or Year 1 in schools.

A considerable amount of the time of the nurses is expended away from the schools in audiometric tasks. This is for testing following examination/treatment by Doctors, of children whose parents have been notified by the Community Health Nurse (School Health) that a hearing problem has been identified. In addition, hearing testing is performed for School Teachers prior to their acceptance into the Public Service Superannuation Scheme.

Education

Newly recruited Community Health Nurses were given an orientation programme in August–September, 1982. In March–April, 1983, a similar programme was delivered to a group consisting of Community Health Nurses, one Nurse from the Division of Youth Welfare and Guidance and three Nurses from the Division of Maternal and Child Health.

Three Community Health Nurses are attending the Queensland Institute of Technology during the current academic year. They are studying the Course, Diploma in Applied Science, Community Nursing. Three Community Health Nurses completed the 1981 (initial) Course for this Diploma.

One Nurse (from Cairns Centre) is presently studying the Post-Basic Geriatric Nursing Course, being conducted at Princess Alexandra Hospital.

In March last, one Nurse (Rockhampton Centre) graduated from the 6 week Enterostomaltherapy Course which was held at Princess Alexandra Hospital. One Nurse from Annerley also graduated from this Course late 1982.

Part-time (including external) study is being undertaken by several nurses; during the year one nurse graduated with a Degree in Arts.

Three Senior Community Health Nurses undertook the Management Development Programme offered by Management Services Branch.

Nurses shared with Centre colleagues the benefits of the education programmes given by the Nurse Educator with Medical Records Administrator, on the subject of the Division's Record system. This followed the audit of records which had continued from the previous year and which identified areas of deficit in use of the Record system.

Nurses in the service also contribute to courses being undertaken by other Registered and Basic Student Nurses and students of other allied health disciplines. The assistance given is in the form of lectures to students undertaking courses, provided at their place of study, or through arrangeing and/or supervising community experience from Centres during placements there. Students so assisted include those from Courses:—

- Diploma in Applied Science, Community Nursing;
- Diploma in Applied Science, Nursing Administration;
- Post-Basic Geriatric Nursing Course;
- Diploma in Nursing;
- Student Nurses of basic nurse training programmes conducted by Hospitals, including the new 1 200-hour programme;
- Diatetic Students;
- Canberra C.A.E. Associate Diploma in Community Health Nursing.

With the continuing interest in community care of the sick person, and an awakening interest in disease prevention, students of several disciplines other than nursing have sought community experience in the pursuit of their studies. They include—

- medical students;
- students of various therapies;
- tertiary students, e.g. B.App.Sc.(H.Ec.);
- secondary school students in the work experience segment of the school curriculum.

SCHOOL THERAPY SERVICES

Occupational Therapy

Brisbane West Region

The Brisbane West Region is serviced by one Occupational Therapist based at the Kenmore District Office, Fairweather Street, Kenmore.

Area Serviced—The Kenmore Therapy Centre has serviced schools attached to the Kenmore District Office as well as needy cases in country areas where access to an Occupational Therapist is severely limited.

Number of Schools Serviced—Twenty-two State Primary Schools, 11 State Pre-Schools and early childhood classes, seven special units, three private kindergartens and two private Schools were serviced in the 12-month period.

The children were usually assessed at their own school which facilitated discussion with teachers, principals, etc., or they were seen at Kenmore Therapy Centre which involved the parents transporting children to the Centre.

Numbers of Children Receiving Attention—Over the 12-month period approximately 21 children were seen for individual therapy, either at their school, or at Kenmore Therapy Centre. A number of groups (6) have been seen over the 12-month period. The number in each group ranged from three to eight participants. The types of groups comprised gross motor and sensory motor development, fine motor skills, visual-perceptual development and handwriting activities. The types of problems the children exhibited ranged from intellectually and physically handicapped to learning disabled.

During the second half of 1982, The University of Queensland Occupational Therapy Department requested placements for 3rd year students (3). The students under the supervision of the Therapist, assisted with group activities and individual therapy. Towards the end of each placement, they had assumed a more responsible role as a "co-therapist" and prepared and executed the therapy. The Therapist was also involved in assisting the university representative in teaching groups of 2nd year students, the use of various assessment tools and techniques. No students were placed at The Kenmore Therapy Centre in 1983 due to the changing workload of the Therapist approaching accounchement leave at the end of Semester One, 1983.

Several children received attention through home-based and teacher programming: Two children from a country area received regular monitoring of the programme either via the phone or visitation. The other children would be regularly reviewed at their school or at home.

Additional Activities—Talks were addressed to parents, teachers and guidance officers concerning the role of Occupational Therapy in the school setting, referral procedures and problem areas of development concerning pre-school and school-age children.

BRISBANE WEST REGION—JULY, 1982–JUNE, 1983

Statistics on Occupational Therapy Cases	No's
Total number of referrals over 12-month period ..	71
Total number of new assessments over 12-month period	47
Total number of schools, etc., from which cases were drawn	43
Total number of review assessments over 12-month period	40
Children Receiving Attention—	
(a) Withdrawn for individual therapy	21
(b) Classroom/parental support programmes ..	25
(c) Withdrawn for group therapy	32
(d) Referral to a more appropriate source of therapy/not warranting intervention or did not wish to undergo programme	11
(e) Children on waiting list for therapy	10
(f) Children waiting to be assessed	13

Brisbane North Region

The Brisbane North Region is serviced by one Occupational Therapist based at the Aspley East State School. During the first semester of 1983, there was a period of 2½ months when the area was not serviced due to the therapist being on leave. This report deals with statistics gathered over a 9½-month period.

Area Serviced—Previously the Aspley East Therapy Centre has serviced an area within a 4-kilometre radius of the Centre. Priority cases are now being accepted from other areas in the north region.

Numbers of Schools Serviced—Twenty State Primary Schools, two State Pre-Schools, two Special Schools, one Special Pre-School, four Special Education Units, three private kindergartens, five convents, one private primary school and one State High School were serviced in a 9½-month period.

The children were assessed at their own school when practicable, or alternatively at the Aspley East Therapy Centre. Numbers of Children Receiving Attention—Thirty children attended the Aspley East Therapy Centre on the 2 days per week allocated for individual therapy. Each child was seen for 30 to 45 minute sessions.

Twelve children received group therapy at the two Learning Disabled Units, at Kedron and Kelvin Grove State Schools. These children also received extra attention during the second semester of 1982 from two third-year Occupational Therapy students who also visited the Learning Disabled Units on a regular weekly basis.

Seventy children received attention through teacher and/or parental support programmes. Some of these children only required initial assessment and advice to teachers or parents, whereas the majority of these cases were reviewed on a monthly basis.

One child required a referral to a more appropriate source, and parents of two of the children refused to co-operate with a therapy programme.

Sensory-motor programmes were also instituted with the Years 1 and 2 children at the Aspley East State School. These programmes were run by an Occupational Therapy student and with the co-operation of the teachers during the second semester of 1982.

Additional Activities

Talks were addressed to teachers at primary schools and pre-schools, trainee guidance officers, guidance officers and physical education students concerning the role of the Occupational Therapist in the school.

BRISBANE NORTH REGION—JULY, 1982–JUNE, 1983

Statistics on Occupational Therapy Cases	No's
Total number of referrals over a 9½-month period	106
Total number of new assessments over a 9½month period	91
Total number of schools, etc., from which cases were drawn	39
Total number of review assessments over a 9½-month period	42
Children Receiving Attention—	
(a) Withdrawn for individual therapy	30
(b) Classroom/parental support programmes	70
(c) Withdrawn for group therapy	12
(d) Referral to a more appropriate source of therapy/ not warranting intervention or did not wish to undergo programme	3
Children on waiting list for therapy	5
Children waiting to be assessed	15

PHYSIOTHERAPY

The physiotherapist continued to service schools in the Brisbane South Region, providing therapy to children at four base schools (Appendix 1) as well as to children from other schools in the region (Appendix 2).

Physiotherapy Assessments

This year there have been 65 new referrals. Fifty-two children have been assessed with the remaining children awaiting assessment. Fifty-six review assessments have been conducted.

PHYSIOTHERAPY ASSESSMENTS

Referral to Physiotherapy	65
Assessments	52
Awaiting Assessment	13
Review Assessments	56

Physiotherapy Treatment

A total of 119 children have been receiving treatment programmes this year.

NUMBER OF CHILDREN RECEIVING TREATMENT

Narbethong	31
Q.S.D.	23
MacGregor	22
Upper Mount Gravatt	9
Other	34
Total	119

The nature of the treatment given depended on the individual children, although emphasis was placed on home programming and teacher advice. Treatment programmes include individual treatments, group treatments, home programmes and advice to teachers. Many children received more than one type of programme.

TREATMENT PROGRAMMES

Individual therapy	47
Group therapy	20
Home programmes	71
Teacher advice	29
Total	167
Adjusted Total*	119

*Total is adjusted as some children are receiving more than one form of treatment.

The Physiotherapist's Role

As well as providing assessment and treatment to children, there are a number of aspects of the physiotherapist's role that are important.

Liaison with Other Centres

The physiotherapist has liaised with other Centres and is treating children in the schools, e.g. Spastic Centre, Spina Bifida Association.

Multi-disciplinary Team

The multi-disciplinary team approach has continued to develop, with case discussions being at MacGregor, Narbethong and other schools when required.

Other Duties

There has been an increase in the number of other duties undertaken this year. These are detailed below:—

Lecturing

A number of lectures have been delivered this year to various groups as follows:—

- Staff at Narbethong School for the Visually Handicapped, September, 1982—"Sensory Motor Development —The Physiotherapist's Role";
- A.C.H.P.E.R. (Australian Council for Health Education Recreation and Dance) Seminar, March, 1983—"Sensory Experiences";
- Speech Therapist's Paediatric Post-Graduate Interest Group, June, 1983—"Sensory Motor Development";
- Australian Association of Special Education, Conference, June, 1983—"A Child's Sensory Motor Development—The Effect on Functioning in the Classroom".

Committees

The physiotherapist has been involved in a number of committees as outlined below:—

- S.H.E.P.A.R.D. Unit Monitoring Committee which is involved in supervising the running of the S.H.E.P.A.R.D. Unit. This Unit provides support for programmes for severely and profoundly handicapped children.
- Local Monitoring Committee of the Bio-educational Engineering Project which is funded by the S.H.E.P.A.R.D. project. This project is involved in the provision of seating for physically disabled children.
- Advisory Committee on Special Equipment for Severely Disabled Children—Special Schools. The physiotherapist has been a member of this committee that was set up by the Interdepartmental Standing Committee—Health, Education and Welfare to investigate the equipment needs of physically disabled children in schools.
- Therapists Monitoring Committee. The physiotherapist attends two monthly meetings held with Health and Education Department personnel to discuss issues relating to therapists in school.

APPENDIX 1

Base Schools

Queensland School for the Deaf
Narbethong School for the Visually Handicapped
MacGregor State School
Upper Mount Gravatt State School (Hearing Disabilities Class)

APPENDIX 2

Referrals from other Schools

Cannon Hill Pre-school
Carina Kindergarten
Dutton Park Pre-school
Eight Mile Plains Pre-school
Mansfield Pre-school
Mabel Park Pre-school
Mount Gravatt West Special Pre-school
Buranda Special School
Mount Gravatt Special School
Carina State School
Greenslopes State School
Marshall Road State School
Morningside State School
Mount Gravatt South State School
Mount Gravatt East State School
Mount Gravatt Adventist School
St. Bernards Upper Mount Gravatt
St. Peters Rochedale
Warrigal Road State School

ABORIGINAL HEALTH PROGRAMME

Health Officer (Aboriginal Health): R. B. HAWES, M.B., B.S.(Lond.), D.T.M.&H.(Liv.)

Regional Medical Officers:
Southern: J. L. JAMESON, M.B., B.S.(Qld.), D.T.M.&H.(Syd.), M.P.H.(Michigan), F.A.C.M.A.
Central: R. P. DAVISON, M.B., B.S.(Qld.), D.T.M.&H.(Lond.), F.R.A.C.G.P.
Northern: R W. STREATFIELD, M.B., B.S.(Syd.), D.T.M.&H.(Syd.), B.Pharm.

The Aboriginal Health Programme commenced widespread field operations in 1972 with the objectives of improving the health of Aborigines and Torres Strait Islanders to a level comparable with that of the Queensland population.

The Programme is funded by a Commonwealth Unmatched Grant. It is a preventive medicine programme which employs resident field staff in 38 different locations throughout Queensland, and some of these also travel to surrounding towns.

The Aboriginal Health Programme is actively involved in the early detection of individuals and groups at risk, in appropriate remedial action or referral, and in close co-operation with whatever curative agencies exist in the area. The Programme in no way competes with curative agencies, but complements their work, by encouraging utilization of existing curative services, including those provided by the State Government and others.

The Aboriginal Health Programme, in addition to large-scale health examinations to detect individuals at risk, now spends time on health promotion work with individuals and groups. Health teams consist of Public Health Nurses and Sisters (Aboriginal Health), Field Officers and Health Assistants or Health Workers. All Health Assistants and Health Workers are of Aboriginal or Islander descent, and increasing numbers of Field Officers, Sisters (Aboriginal Health) and Public Health Nurses of Aboriginal or Islander descent, are being recruited. The Health Assistants/Health Workers have undergone in-service training on medical subjects, and have recently undergone specific training in the Skills of "Self Help Health Care" and in communication techniques so that they may effectively involve local groups and communities in taking increasing responsibility for improving their own health using the "Self Help" techniques.

Recent Developments

A new Health Team was established at Mossman in October, 1982. A sub-unit of the Doomadgee Team was re-opened at Burketown in July, 1982, and a new sub-unit of the Mount Isa Team was opened at Boulia in June, 1983. There are now 31 Teams and seven sub-units throughout the State, including Teams at 12 of the 14 Aboriginal Communities. Aborigines and Islanders now make up 66 per cent of the Field Staff of the Aboriginal Health Programme. A full breakdown of staff is given in the following Table.

TABLE 1

SUMMARY OF STAFF AS AT 30th JUNE, 1983

—	No. Commenced Duty	No. Appointments Pending
Health Officer	1	..
Regional Medical Officers ..	3	..
Dietitians	1	1
Microbiologists	2	..
Brisbane Office Clerical/General Assistant/Clerk-Typists/Stenographers	14	..
Principal Nurse	1	..
Regional Nursing Supervisor ..	1	..
Health Assistant Instructor ..	..	1
Public Health Nurses	30	6
Sisters (Aboriginal Health) ..	9	1
Health Assistants	68	4
Health Workers	24	2
Field Officers	33	1
Itinerant Hygiene Officers ..	2	..
	189	16

Professionalism in the Field

The key health professional in the field for the Aboriginal Health Programme has been the Public Health Nurse. These personnel are required to possess at least two appropriate nursing certificates and to undertake an extensive in-service training programme, the first of which was conducted in 1972. At the inception the emphasis was on health screening of children and arrangement of remedial action for illnesses present at high levels. With subsequent response and improvement in health, increasing emphasis has been placed on continuing health education and to this end, nursing and other field staff have undertaken further training in the skills related to the development of Self Help Health Care activities among Aboriginal communities.

Full-time study was undertaken by one nurse who successfully completed a Diploma of Applied Science (Nursing Administration), at the Queensland Institute of Technology, in the academic year of 1982. Nurses within the Programme are advancing their professional knowledge by undertaking external tertiary courses, broadening their skills and knowledge to enable them to fulfil their role in a changing society.

Staff Training

The needs of on-going education have been addressed by the Programme Educational Unit plus outside seminars, conferences and lectures.

Five Public Health Nurses and five Sisters (Aboriginal Health) attended a 10-week In-Service Training Course. In addition, the five Sisters (Aboriginal Health) completed Obstetrics Training Segments.

Five Field Officers attended a training course in Cairns during September–October, 1982. Seven Field Officers attended a training course in Brisbane in November, 1982. Eight Field Officers underwent re-training in Cairns in October, 1982.

All Health Workers and Health Assistants are nearing completion of a two-year on-the-job training programme involving weekly lectures and discussions on a range of health and medical subjects based on training booklets sent to each person.

One Public Health Nurse attended an Intensive Course on Diabetic Education at Royal Brisbane Hospital in September, 1982. One Health Assistant attended In-Service Training in "Sexually Transmitted Diseases" in Brisbane, July, 1982.

Counselling and advice on professional career development is given. This is being achieved through distribution of information regarding courses available at the Queensland Institute of Technology, Colleges of Advanced Education, Technical and Further Education Colleges, and tertiary institutions. During the progress of these courses, continuing support and advice is provided by this Unit.

Regional Workshops

Fourteen Health Assistants/Health Workers from the Southern Region attended a combined General/Skills Workshop in Brisbane in May, 1983. Fourteen Health Assistants/Health Workers from the Central Region attended a combined General/Skills Workshop in Mount Isa in June, 1983. Fifteen Health Assistants/Health Workers from the Northern Region attended a combined General/Skills Workshop in Cairns in June, 1983.

Field Team Activities

Some concept of the magnitude of other Health Team activities may be gained from the following Table, although it should be realized that such data reflects only those aspects of their activities which can be easily recorded and cannot provide any indication of the extent of the skilled counselling, advising, supportive and educative activities of the Programme's staff, all of which are vitally important.

TABLE 2

TEAM ACTIVITIES FOR 1982

No. of persons contacted	194 905
No. of home visits	74 848
Total No. of treatments	70 698
No. of haemoglobins examinations performed ..	6 226
No. of prescribed nutritional supplements given ..	3 592
No. of faeces specimens submitted	2 670
No. of persons treated for enteric parasites ..	5 257
No. of health screenings conducted	14

Dietary-Nutrition Unit

The Dietary-Nutrition Unit (D.N.U.) now consists of two Dietitian-Nutritionists and four specially trained Dietary-Nutrition workers of Aboriginal and Islander descent. This is the same as for the previous year. One worker will shortly complete training in Brisbane and will then work from Mount Isa to cover Mount Isa and other parts of that region. Two of the other workers are still in Townsville and Brisbane respectively, and the third began implementing nutrition programmes for the Cairns, Cape York and Torres Strait areas. The one nutrition worker who ceased work with D.N.U. this year has been able to assist one Health Team through her part-time employment with another organization.

The Aboriginal and Islander Dietary-Nutrition workers have the major responsibility and authority for planning, conducting and evaluating their own community nutrition projects and sessions at workshops for the Health Assistant/Health Workers. An important part of their work is to act as consultants to the rest of the field staff of the Aboriginal Programme and also to outside organizations. Their contributions are in high and growing demand.

There has been further escalation in the number, scope and effectiveness of the resources which are being developed to assist field workers in the dietary management not only of undernutrition but also of obesity and diabetes. Treatment of these latter conditions is conducted along lines which complement the other efforts of the Aboriginal Health Programme to detect and treat undernourished children.

There has been a notable increase in the variety of resources allocated for use in the diet therapy process. These resources complement the provision of other educational tools such as food and nutrition information. This advance reinforces the Self Help activities of the Aboriginal Health Programme.

Parasitology

The results of examinations of faecal specimens for enteric parasites are summarized in the tables below. Only results for children with verified dates of birth and other relevant information are included. Results of some examinations by hospital laboratories outside Brisbane have been included in this year's summaries. Control of *Ascaris lumbricoides* and Hookworm has been maintained. The high prevalence of *Trichuris trichiura* in some regions is a cause for concern. It is hoped that measures for control of this worm can be implemented successfully in 1983. Prevalence of the protozoan parasite *Giardia lamblia* remains high, but because of its very short pre-patent period and likely direct transmission from person to person, control is very difficult and treatment can be managed only on an individual basis.

A collection of blood smears from Papua New Guinea visitors to Yam Island on the Torres Strait was examined for malaria parasites. Ten were found to contain parasites.

TABLE 3
RESULTS OF EXAMINATIONS FOR ENTERIC PARASITES BY AGE GROUPS—1982
Per cent Positive

Age Group	Number Examinations	*Entamoeba histolytica* cysts	*Entamoeba coli* cysts	*Giardia lamblia* cysts	*Ascaris* ova	Hookworm ova	*Strongyloides* larvae	*Trichuris* ova	*Hymenolepis nana* ova	No Parasites Found
<1 year ..	55	..	..	5	..	..	2	4	..	89
1–4 years ..	535	2	19	30	2	..	1	35	13	32
5–9 years ..	873	4	27	22	2	..	1	38	19	26
10–14 years	567	3	28	13	1	..	1	44	13	26
> 15 years ..	35	3	23	20	..	..	9	49	6	31
All Ages Total	2,065	3	25	21	2	..	1	38	15	29

NOTES ON TABLES

1. The examinations made were of formal-saline preserved specimens which are unsuitable for the detection of the trophozoite stages of the enteric protozoa. Occasional findings of trophozoites have not been included in these results.
2. A variety of other protozoa are found. Most of them are not clinically significant and they have not been included in these results.

TABLE 4
RESULTS OF EXAMINATIONS FOR ENTERIC PARASITES BY REGIONS—1982
Per cent Positive

Regions	Number Examinations	*Entamoeba histolytica* cysts	*Entamoeba coli* cysts	*Giardia lamblia* cysts	*Ascaris* ova	Hookworm ova	*Strongyloides* larvae	*Trichuris* ova	*Hymenolepis nana* ova	No Parasites Found
Moreton ..	252	4	32	19	1	..	..	6	9	39
Wide Bay Burnett ..	85	21	34	44	4	..	..	33	33	12
Fitzroy ..	321	..	2	21	1	..	<1	44	28	31
Northern ..	369	4	30	14	6	..	1	52	9	32
Far North ..	211	3	21	17	..	..	1	49	8	38
North West	827	2	28	24	..	..	2	37	15	24
All Regions Total ..	2,065	3	25	21	2	..	1	38	15	29

Sexually Transmitted Diseases

A specialized Health Team (Team 4) has been working for some years in North Queensland. It consists of three Health Assistants, one Field Officer and one Public Health Nurse. It is based in Cairns.

This Team maintains a Central Case Control Register. It engages in regular educational activities and assists in Contact Tracing. Table 5 summarizes Contact Tracing Activities from 1st June, 1982 to 30th May, 1983. Regular visits to Aboriginal Communities in Cape York were conducted until the latter half of 1981, but are now being scaled down as there has been extensive education from 1979 to 1981 with a diminished response in attendances at education sessions in some areas. The Team is now concentrating on further education of the staff of health teams in these Communities.

In addition, Schools and Community Groups in the Cairns area continue to receive education on "Sexually Transmitted Diseases". Nineteen Nursing Staff have received orientation training also. Appropriate information has been circulated to Doctors and Hospitals in the Cairns and Cape York areas.

TABLE 5
CONTACT TRACING STATISTICS—1st JUNE 1982–30th MAY 1983

Total Referrals—172

——	Referrals	Success	Failure To Find	Did not Respond to Visit	Currently Tracing
Females—76 Referrals					
Gonorrhoea	16	11	1	. .	4
Syphilis	12	9	2	. .	1
Donovanosis	5	4	. .	1	. .
Interview for Contacts	12	12	. .	. .	. .
Needing Rx: Syphilis	10	9	. .	. .	1
Donovanosis	5	4	. .	. .	1
Gonorrhoea	12	9	2	. .	1
Follow-up RPR/Smear	4	2	1	. .	1
	76	60	6	1	9
Males:—96 Referrals					
Gonorrhoea	20	14	2	. .	4
Syphilis	23	14	3	. .	6
Donovanosis	17	10	4	. .	3
Interview for Contacts	14	14	. .	. .	. .
Needing Rx: Syphilis	13	10	. .	. .	3
Donovanosis	1	. .	. .	. .	1
Gonorrhoea	8	7	1	. .	. .
	96	69	10	. .	17

The following Table lists the educational activities of the Team for the same period:—

TABLE 6
TEAM 4 EDUCATION ON ENTHETIC DISEASES—1st JUNE 1982–30th MAY 1983

Area	S.T.D. EDUCATION DELIVERED TO:								Total No. Received Education
	No. of Visits by Team 4	A.H.P.*	Hospitals	General Public	P & C	Primary Schools	High Schools	Colleges	
Cape Communities—									
Aurukun	2	. .	4	4	. .	. .	23	. .	31
Cooktown	2	4	. .	28	. .	. .	10	. .	42
Edward River	1	. .	5	. .	. .	. .	. .	. .	5
Hopevale	2	. .	. .	18	. .	20	. .	. .	38
Kowanyama	2	2	2	37	. .	. .	. .	. .	41
Laura	1	. .	. .	5	. .	. .	. .	. .	5
Lockhart River	2	. .	. .	121	. .	38	. .	. .	159
Mossman	7	3	. .	. .	6	. .	. .	. .	9
Weipa North	2	. .	. .	65	. .	. .	136	11	212
Weipa South	3	4	6	44	. .	17	. .	. .	71
Wujal Wujal	2	. .	2	44	. .	10	. .	. .	56
Yarrabah	11	3	6	14	. .	37	138	. .	198
Bamaga	3	3	. .	75	. .	44	. .	27	149
Cairns Area—									
VD Clinic	43	. .	. .	23	. .	. .	. .	. .	23
Inpatients	3	. .	. .	3	. .	. .	. .	. .	3
Antenatals	1	. .	. .	1	. .	. .	. .	. .	1
TAFE College	1	. .	. .	. .	. .	. .	. .	30	30
Business College	1	. .	. .	. .	. .	. .	. .	15	15
Womens Shelter	1	. .	. .	12	. .	. .	. .	. .	12
Schools—									
Trinity Bay	5	. .	. .	. .	. .	. .	136	. .	136
Gordonvale	1	. .	. .	. .	. .	. .	29	. .	29
Orientation—									
A.H.P.	. .	2	. .	. .	. .	. .	. .	. .	2
Cairns Hospital	. .	. .	3	. .	. .	. .	. .	. .	3
D.A.I.A.	. .	. .	13	. .	. .	. .	. .	. .	13
RFDS Doctor	. .	. .	1	. .	. .	. .	. .	. .	1
Coral Hostel	1	. .	. .	12	. .	. .	. .	. .	12
Centennial Lodge	2	. .	. .	44	. .	. .	. .	. .	44
Douglas House	2	. .	. .	41	. .	. .	. .	. .	41
Private Groups	4	. .	. .	28	. .	. .	. .	. .	28
Kuranda	5	. .	. .	23	. .	. .	. .	. .	23
Tablelands Area—									
Atherton	2	. .	1	. .	. .	. .	40	. .	41
Chillagoe	1	. .	. .	28	. .	. .	. .	. .	28
Herberton	1	. .	. .	. .	15	. .	. .	67	82
Mareeba	3	2	. .	2	. .	. .	. .	. .	4
Other Areas—									
Innisfail	3	. .	1	15	20	. .	. .	. .	36
Normanton	1	3	5	62	. .	36	. .	. .	106
Karumba	1	. .	. .	(no response)	. .	. .	. .	. .	. .
Doomadgee	1	. .	. .	214	. .	. .	122	. .	336
Burketown	1	. .	. .	19	. .	. .	. .	. .	19
Mornington Island	1	2	. .	45	. .	60	45	. .	152
Mount Isa	2	10	2	26	. .	. .	. .	. .	38
Boulia	1	. .	. .	14	. .	. .	. .	. .	14
Dajarra	1	. .	. .	12	. .	. .	. .	. .	12
Cammoweal	1	. .	. .	44	. .	. .	. .	. .	44

* Aboriginal Health Programme.

School Health Examinations

School Health needs in remote areas are addressed by five Public Health Nurses who have an extended role undertaking this work. This work continues in co-operation and in accordance with policies of the Division of Child Health School Health Services. The Table below lists the activities of those Sisters engaged for part of their working time in School Health activities.

TABLE 7

SCHOOL HEALTH EXAMINATIONS

District	Cape York Peninsula	Torres Strait Islands	Palm Island	Cunnamulla	Eidsvold	Cherbourg	Total
Total School Enrolment	1,162	531	508	No Return	No Return	269	2 470
Total No. of Children Examined ..	521	309	102	..	..	125	1 057
Percentage of Enrolment Total Examined	44·8%	58·2%	20·1%	..	..	46·5%	42·8%
Notifications	46	25	36	..	..	4	111
Percentage of Those Examined ..	8·8%	8·1%	7·1%	..	..	3·2%	10·5%
Referrals to Other Agencies	24	38	29	..	..	6	97
Percentage of Those Examined ..	4·6%	12·3%	5·7%	..	..	4·8%	9·2%

Buildings and Vehicles

A duplex accommodation unit was completed at Thursday Island during the second half of the 1982–83 year. The Head Office of the Aboriginal Health Programme moved to the former Primary Industries Building, William Street, Brisbane, in August, 1982.

One of the Townsville Health Teams moved to a new office at Westside Plaza, Kirwan, Townsville in February, 1983.

There remain 71 vehicles in the Aboriginal Health Programme, comprising 21 four wheel drives, 48 sedans or station wagons and two utilities or panel vans.

Health Statistics

Some statistics are available from hospitals on 14 Aboriginal Communities. It should be noted that these refer to less than 30 per cent of the Aboriginal and Islander population of Queensland and cannot be taken to be representative of the whole Aboriginal and Islander population.

Nevertheless, they do give a general picture of the pattern of morbidity and mortality, and thus represent a guide to progress by the Programme and other activity aimed at the advancement of aborigines.

Table 8 provides details of the Stillbirth, Perinatal, Neonatal and Infant Mortality Rates for the three-year period from 1980–1982 and compares these rates with previous three-year periods. Again there is a welcome improvement in all these rates, and it should be noted that the Infant Mortality Rate in particular, is generally recognized as an indicator of the overall health status of a community.

TABLE 8

PERINATAL AND INFANT MORTALITY FOR FOURTEEN ABORIGINAL COMMUNITIES

Fourteen Communities	Live Births	Stillbirths		Neonatal Deaths			Total Infant Deaths	
		Number	Rate	Number	Perinatal Mortality Rate	Post-Neonatal Deaths Number	Number	Infant Mortality Rate
1972–74	985	33	32.4	34	65.8	44	78	79.2
1975–77	995	29	28.3	23	50.8	35	58	58.2
1978–80	974	24	24.6	13	38	19	32	32.8
1980–82	967	17	17.3	6	23.4	20	26	26.9

Stillbirth Rate—Number of stillbirths per 1 000 births.

Perinatal Mortality Rate—Number of stillbirths and neonatal deaths per 1 000 births.

Neonatal Deaths are those live born infants dying within 28 days of birth.

Infant Mortality Rate—Number of infant deaths per 1 000 live births.

The Table below, lists the Causes of Deaths for all ages, on the fourteen Aboriginal Communities.

TABLE 9
CAUSES OF DEATH IN FOURTEEN ABORIGINAL COMMUNITIES AND MISSIONS FOR 1982*

Cause of Death ICD Basic Tabulation List	No. of Deaths	% of Total Deaths
01 Intestinal Infectious Diseases	3	2·3
03 Other Bacterial Disease	1	0·8
09 Malignancy of Digestive Organ	1	0·8
10 Malignancy of Respiratory Organ	2	1·5
11 Malignancy Breast etc.	1	0·8
13 Malignancy Other or Unspecified	3	2·3
18 Endocrine, Metabolic, Immunity	1	0·8
20 Diseases Blood	1	0·8
22 Diseases Nervous System	3	2·3
25 Rheumatic Heart Disease	1	0·8
27 Ischaemic Heart Disease	10	7·7
28 Other Heart Disease	17	13·1
29 Cerebro-Vascular Disease	8	6·1
30 Other Disease C-V System	1	0·8
31 Upper Respiratory Tract Disease	3	2·3
32 Other Disease Respiratory System	20	15·4
34 Disease Digestive System	2	1·5
35 Disease Urinary System	6	4·6
42 Diseases Skin	1	0·8
44 Congenital Anomalies	2	1·5
45 Perinatal Conditions	1	0·8
46 Ill Defined Conditions	29	22·3
49 Intracranial Injuries	1	0·8
50 Open Wounds	2	1·5
51 Inhalation Vomitus	1	0·8
52 Burns	3	2·3
55 Other Injuries	4	3·1
56 Late Effects of Injuries	2	1·5
TOTAL ALL CONDITIONS	130	100

*Information for Aurukun, Mornington Island, Palm Island and Wujal Wujal not verified.

Table 10 lists the causes of death for Aboriginal infants. It is pleasing to note that the efforts to reduce deaths from intestinal infectious diseases have had some success.

Not only has the infant mortality rate continued to decline progressively over the last decade, the previous major causes of deaths are notable by being almost absent in 1982. These were gastro-enteritis, pneumonia, prematurity and birth-trauma. Whilst the stillbirth rate continues to be higher than average however, the presence of the latter two items is likely and highlights the need for continuing emphasis on the necessity for early and regular ante-natal care.

TABLE 10
NUMBER OF DEATHS OF ABORIGINAL INFANTS UNDER ONE YEAR OF AGE BY CAUSE AND AGE AT DEATH IN FOURTEEN ABORIGINAL COMMUNITIES FOR 1982*

Cause of Death ICD Basic Tabulation List	7 days	7–27 days	1–11 months	Total Deaths under 1 year	
				No.	% of Total Deaths <1 year of age
01 Intestinal Infectious Diseases	..	..	1	1	11
22 Diseases Nervous System	..	..	2	2	22
44 Congenital Anomalies	1	..	1	2	22
45 Perinatal Conditions	..	..	1	1	11
46 Ill-defined Conditions	1	..	2	3	33
TOTAL	2	..	7	9	100

* Information for Aurukun, Mornington Island, Palm Island and Wujal Wujal not verified.

HEARING CONSERVATION AND TREATMENT PROGRAMME

The financial responsibility for this Programme was transferred from the Department of Aboriginal and Islanders Advancement to the Department of Health on 1st July, 1982. The Programme moved offices from the University of Queensland Medical School, Herston to Aboriginal Health Programme Headquarters, William Street in December, 1982.

Staffing on the Hearing Conservation and Treatment Programme now consists of one Audiologist/Co-ordinator and three Aboriginal Audiometrists. The Nursing Sister and Field Audiologist resigned in June and September, respectively, of 1982 and the positions have not been re-advertised.

With the assistance of Public Health Nurses from the Aboriginal Health Programme, the Hearing Team has continued to conduct annual ear and hearing screenings of Aboriginal communities. Some centres with large Aboriginal populations were screened for the first time by the team (Dajarra, Boulia, Camooweal, Cloncurry, Ravenshoe and Mount Garnet). Metropolitan Aboriginal kindergartens have been screened on request. Ear Nose and Throat Registrars have conducted outpatient clinics for 823 children/adults at eight communities. The Hearing Team recomemnded that 35 people be fitted with hearing aids.

The Programme has continued to liaise with the Speech and Hearing Department (University of Queensland) in the analysis of the data collected by the Hearing Team when screening, over the last 9 years.

RESULTS OF EAR AND AUDIOLOGICAL SCREENING 1982–83

Age Groups	Number Seen	Perforations in one or both ears	Hearing Loss in one or both ears
0–4 years	588	61	98
5–9 years	1 503	176	492
10–14 years	1 270	174	408
15+ years	409	35	153

NOTE.—Hearing tests were performed in non-sound proof conditions. A child/adult was considered to have a hearing loss if his threshold exceeded 25 db.

ABORIGINAL AND ISLANDER HEALTH ADVISORY COUNCIL

Chairperson: Sister E. BERLIN

Secretary: N. W. FINLAY, B.A.

Councillors: Mr N. FATNOWNA
Mrs L. WENITONG
Mrs I. HALL
Mrs R. RICHARDS
Mr K. WAIA
Mr W. BOWIE

Resignation: Mr N. BRUMBY

The Aboriginal and Islander Health Advisory Council commenced its operations on Friday, 26th November, 1982, with its first meeting which was held in Brisbane on that date. The Council consists of Seven Ministerially appointed members plus a full-time Secretary. The purpose of the Health Advisory Council is to provide advice to the Health Minister on matters pertaining to Aboriginal and Islander Health. Further, as Council's membership consists of persons who are of Aboriginal or Islander descent, the advice provided to the Minister for Health should reflect, to a fair degree, the viewpoint of the Queensland and Aboriginal Community.

Since its inaugural meeting, the Aboriginal and Islander Health Advisory Council has met on two occasions, these being 6th April, 1983, and 6th July, 1983. The Secretary of the Health Advisory Council, Mr Neil Finlay, was appointed on 27th January, 1983, and assumed his duties on 1st February, 1983. The business of the Health Advisory Council has involved discussion relating to Alcohol Abuse, Care and Concern for the Aged, Hearing Conservation, Nutrition, Housing, and Health Problems faced in remote areas. In the area of positive results for advice provided, the Health Advisory Council has witnessed the acceptance, by the Department of Welfare Services, of an alcohol and drug awareness programme which is to be introduced into the Brisbane Prison.

DIVISION OF LABORATORY SERVICES

LABORATORY OF MICROBIOLOGY AND PATHOLOGY

Director: I. S. WILKEY, B.Sc., M.B., B.S., LL.B., F.R.C.P.A. to 17-2-83
A. J. ANSFORD, M.B., Ch.B., D.C.P., F.R.A.C.P., F.R.C.P.A. from 24-2-83

Deputy Director: A. J. ANSFORD, M.B., Ch.B., D.C.P., F.R.A.C.P., F.R.C.P.A. to 6-11-82

Pathologists: A. DAVISON, M.B., B.S., F.R.C.P.A.

W. J. MAIR, M.B., Ch.B., F.R.C.P.A. from 22-1-83

Laboratory Supervisor: I. COOK, M.Sc., M.A.S.M.

Supervising Serologist: N. D. STALLMAN, B.Sc., M.A.S.M.

Co-ordinator of Country Pathology: J. CAIRNS, B.App.Sc.

Scientist in Charge:
Biochemistry: H. R. M. SELF, B.App.Sc. to 9-4-83
J. SAVILL, B.App.Sc. from 11-4-83
Virology: I. COOK, M.Sc., M.A.S.M.
Serology: N. D. STALLMAN, B.Sc., M.A.S.M.
Bacteriology: Y. M. COSSINS, B.App.Sc., M.A.S.M.
Mycobacteriology: Z. M. BLACKLOCK, B.Sc.
Haematology: A. B. FINDLAY, Dip.Med.Tech., F.A.I.M.L.S.
Cytogenetics: J. A. BELL, Dip.Mech.Tech.
Forensic Biology: G. J. HARMON, B.App.Sc., Dip.Med.Tech.
Neonatal Screening: F. G. BOWLING, B.Sc.
Wolston Park: B. P. PARKER, C.B.L.T., B.App.Sc.

INTRODUCTION

The Laboratory of Microbiology and Pathology consists of the State Health Laboratory situated in the Health and Welfare Building, the Institute of Forensic Pathology, an animal breeding station at the Normanby and a branch laboratory at Wolston Park Hospital.

The laboratory is the only clinical diagnostic virology laboratory in Queensland and is the State reference laboratory for tuberculosis, clinical serology and public health microbiology. It provides the coronial autopsy service for Brisbane and the forensic biology service for Queensland. The neonatal screening programme for inborn errors of metabolism for Queensland is conducted by the laboratory in association with the Division of Maternal and Child Health.

The co-operation and assistance of the Government Chemical Laboratory, Queensland Institute of Medical Research, Queensland Police Department, Queensland hospital laboratories, Red Cross Blood Transfusion Service, University of Queensland, Commonwealth Health Laboratories Commonwealth Serum Laboratory, Australian Radiation Laboratory, Commonwealth Institute of Health, the Institute of Clinical Pathology and Medical Research, the Institute of Medical and Veterinary Science and the Centers for Disease Control (CDC), Atlanta, Georgia, are gratefully acknowledged.

STAFF AND GENERAL

During the year, the Director, Dr I. S. Wilkey, was appointed to the position of Assistant Director-General—Scientific Support Services. The new position was created as a result of the administrative reorganization of the Department of Health; the Laboratory of Microbiology and Pathology is one of several scientific departments under its direction. Dr Wilkey entered the new position with scientific, medical and legal qualifications supported by considerable administrative experience. Although he served as Director for a comparatively short time, he made significant contributions to its function in both routine diagnosis and research. His continued involvement in the operations of the laboratory is welcomed.

Dr A. J. Ansford was promoted to the position of Director of the Laboratory of Microbiology and Pathology. The position of Deputy Director has been abolished.

Dr W. J. Mair joined the staff as a Pathologist in February, 1983.

Mr H. R. M. Self retired in April, 1983. Mr Self joined the Queensland Public Service as a Clerk in the State Advances Corporation in 1939. He saw war service from 6-1-42 to 19-8-46 when he rejoined the service as a clerk in the Housing Commission. He undertook part-time study under the Service Rehabilitation Scheme, obtained his Bachelor of Applied Science and joined the laboratory in 1952. During his time in this division, he became one of the original forensic biologists and received a commendation from the Commissioner of Police for New Guinea for his assistance in a difficult case. At the time of his retirement, he was Senior Scientist in charge of the Biochemistry Section.

The scientific staff includes a laboratory supervisor, one supervising serologist, nine senior scientists, 24 scientists, 30 technicians, and 17 technical assistants and cadets. Support staff includes a nursing sister, 16 attendants and 13 clerical and typing staff.

Two specialist pathologist positions remain vacant. One position continues to be used for the appointment of an additional pathology trainee in the metropolitan laboratories rotational training programme, which as a result now includes Prince Charles Hospital. This programme began in 1977 and registrars in training in Anatomical Pathology work in the laboratory throughout the year. Some of the registrars who have participated now work in country areas where their forensic experience can be utilized.

Dr Wilkey is executive secretary of the Country and Metropolitan Pathology Services Committees and is the State Government representative on the National Pathology Accreditation Advisory Council. He is a member of the Red Cross Blood Transfusion Service Committee. He has been appointed a member of the new Health Sciences Field of Study Review Committee of the Board of Advanced Education and the Course Assessment Committee for the B.App.Sc. Medical Technology and the Associate Diploma in Clinical Laboratory Techniques of the Queensland Institute of Technology. He is Deputy Chairman of the Council of the Queensland Institute of Medical Research.

Dr Ansford is a member of the Committee to Enquire into Deaths Associated with Anaesthesia and the Queensland Perinatal Mortality Committee and is executive secretary of the Committee on Immunology Services.

Dr Davison is a member of the Maternal Mortality Committee.

Mr N. D. Stallman is in charge of the WHO/FAO Collaborating Centre for Reference and Research on Leptospirosis and is secretary of the Subcommittee on the Taxonomy of *Leptospira* of the International Committee on Systematic Bacteriology of the International Union of Microbiological Societies. During the year, he undertook an extensive overseas trip during which he attended the XIII International Congress of Microbiology of the International Union of Microbiological Societies in Boston, U.S.A. This included meetings of the Subcommittee on the Taxonomy of *Leptospira* and was followed by the 25th American Leptospirosis Research Conference at the University of Massachusetts. He also visited numerous centres involved in Leptospirosis research and in the diagnosis of viral, rickettsial and venereal diseases in North America, the United Kingdom and on the continent.

The opportunity for Mr Stallman to visit these countries was of great benefit to this Laboratory and must enhance the reputation of the Laboratory of Microbiology and Pathology on an international basis.

A comparison of the methods used at the various laboratories showed that the techniques used here and the range of tests performed in the serological diagnosis of diseases compare most favourably.

Mr D. J. Dawson, a senior scientist in the mycobacteriology section, is a corresponding member of the Bacteriological Subcommittee of the International Union Against Tuberculosis. He is also a member of a task group of the International Working Group on Mycobacterial Taxonomy and is particularly concerned with MAIS serotyping.

Mr J. Savill, scientist-in-charge of the biochemistry section, is the Queensland representative on the Australian Lipid Standardisation Committee.

Mrs J. Bell, senior scientist-in-charge of the cytogenetics section, and Mr F. Bowling, scientist-in-charge of the neonatal screening section, hold executive positions in the Human Genetics Society of Australasia.

The Northern Territory Police requested assistance in March, 1983, as they were temporarily without the services of a forensic pathologist. Staff pathologists have given help on several occasions. It is anticipated that a forensic pathologist will take up duties in Darwin in mid-August 1983.

Staff members have presented papers at meetings of several professional societies and have been authors or co-authors of a number of scientific papers accepted for publication during the year.

Members of the staff gave lectures and tutorials on various subjects at the University of Queensland, Queensland Institute of Technology and the Police College.

Visitors to the laboratory included Professor K. Bhattacharyn, Department of Pathology, University of Papua New Guinea; Dr George Gericke, Department of Medical Genetics, University of Capetown; Dr L. Verstuyft, WHO representative to the South Pacific, Suva; Dr R. Goodman, Professor of Human Genetics, University of Tel Aviv; Dr I. Huq, International Centre for Diarrhoeal Disease Research, Bangladesh; Dr Robert Kirk, Department of Human Biology, John Curtin School of Medical Research, Canberra; and Mr R. Metcalfe, National Health Institute, Wellington, New Zealand.

Dr I. Wilkey and Mrs J. Bell were members of the subcommittee of the Commonwealth Games Foundation responsible for the organization of the sex testing of competitors. Various other members of the staff gave their services on a voluntary basis in a variety of capacities.

The laboratory was represented at the following conferences and seminars during the year:—

7th World Congress on Animal, Plant and Microbial Toxins, Brisbane, 11th–16th July, 1982. (Dr A. J. Ansford);

Annual Scientific Meeting—Australian Institute of Medical Laboratory Science: South Pacific Congress in Medical Laboratory Technology. Christchurch, New Zealand, 9th–13th August, 1982. (Mr A. B. Findlay);

XIII International Congress of Microbiology of the International Union of Microbiological Societies. Boston, U.S.A. 8th–13th August, 1982. (Mr N. D. Stallman);

American Leptospirosis Research Conference, 25th Annual Meeting, Amherst, U.S.A. 15th–17th August, 1982. (Mr N. D. Stallman);

Annual Scientific Meeting, Royal College of Pathologists of Australasia. Dunedin, New Zealand, 16th–19th August, 1982. (Dr A. J. Ansford);

XIV International Congress of International Academy of Pathology and 5th World Congress of Academic and Environmental Pathology. Sydney, 11th–15th October, 1982. (Dr A. J. Ansford);

21st Anniversary Annual Conference of the Australian Association of Clinical Biochemists. Adelaide, 2nd–5th November, 1982. (Mr J. Savill);

Annual Meeting, Australian Society for Microbiology. Brisbane, 16th–20th May, 1983. (Mr N. D. Stallman, Mr R. Grice, Mr R. Tinniswood, Mr D. Dawson);

7th Annual Scientific Meeting—Human Genetics Society of Australasia. Perth, 23rd–26th May, 1983. (Mrs J. Bell and Mr F. Bowling);

9th Annual Meeting, International Academy of Pathology. Sydney, 4th–5th June, 1983. (Dr A. J. Ansford).

SEROLOGY

Introduction

There has been a 1 per cent decrease in serological investigations during the year. This probably relates to the reduction of the number of arbovirus infections diagnosed. There were 101 fewer cases of epidemic polyarthritis confirmed this year than in the previous year. Also, the predicted continuation of the dengue fever epidemic did not eventuate. The reason is not known but probably relates to the dry weather conditions. The departmental and local authority campaign to reduce mosquito breeding sites may also have played a significant role.

Q Fever

During the year, 158 cases of recent Q fever infection were diagnosed, a decrease of nine on last year. Of these, 140 were from Queensland and 18 from New South Wales. A four-fold rise in antibody titre in paired sera or a titre of 1:64 or greater in a single serum sample was regarded as diagnostic. The geographical distribution and occupations of the patients are set out in Tables 1 and 2.

One probable case of chronic Q fever was diagnosed in a 77-year-old man on the basis of an elevated titre to Q Phase 2 antigen and a titre of at least 1:128 to Q Phase 1 antigen. His only previous serology was in late 1979 which was negative for Q fever serology. He presented with fever, myalgia, anorexia, hepatomegaly and vomiting.

Brucellosis

Brucellosis was diagnosed in three patients on the basis of a four-fold rise in titre in paired sera or a titre of 1:128 or greater in a single specimen using the agglutination test. The geographical distribution of the cases is shown in Table 3.

Typhus

Seven probable cases of tick typhus were diagnosed based on a four-fold rise in titre in paired specimens or a titre of 1:128 or greater in a single specimen using the agglutination test with *Proteus* OX19 antigen. Complement fixation tests using *Rickettsia australis* antigen were negative in all but one patient.

One probable case of scrub typhus was diagnosed on the basis of a four-fold rise in titre in paired specimens from an 8-year-old girl who had visited Indonesia and later presented with a history of fever and eschar.

Mycoplasma pneumoniae

On the basis of a four-fold rise in titre in paired specimens or a titre of 1:128 or greater in a single specimen and a consistent clinical history, 262 cases of *Mycoplasma pneumoniae* infection were identified. Of these cases, 257 occurred in Queensland, four in New South Wales and one in Papua New Guinea. Almost a third of these cases were children under the age of 15 years.

Measles Sub-Acute Sclerosing Panencephalitis

Serum and cerebrospinal fluid specimens were submitted from a 12-year-old boy with a history suggestive of SSPE. Both these specimens showed the presence of measles antibodies.

Legionnaires' Disease

Three cases of Legionnaires' disease were diagnosed on the basis of a four-fold rise in titre to 1:128 or greater in paired specimens in the fluorescent antibody test. Two of these patients presented with fever and pulmonary involvement and one also developed encephalitis. No details of the clinical history of the third case were supplied.

Another three cases of possible Legionnaires' disease were detected on the basis of a titre of 1:256 or greater in one or more specimens. These patients all presented with pulmonary involvement.

Syphilis Serology

The automated reagin test (ART) is used for screening all specimens. Reactive sera are then tested quantitatively using the ART, fluorescent treponemal antibody absorption test (FTA-ABS) and the *Treponema pallidum* haemagglutination test (TPHA).

Mycotic and Parasitic Diseases

Serological tests for cryptococcosis, toxoplasmosis, hydatidosis, amoebiasis and schistosomiasis are performed in this laboratory. Serological tests for other mycotic diseases including histoplasmosis, coccidioidomycosis and blastomycosis and parasitic diseases including strongyloidiasis, toxocariasis and filariasis are not available in Queensland. Serum samples for these tests are set to CDC, Atlanta, Georgia.

A 21-year-old woman from Cairns who presented with a history of optic neuritis showed low levels of cryptococcal antigen in her early specimens (both serum and cerebrospinal fluid) which later disappeared with treatment. An early CSF specimen also showed a scanty growth of *Cryptococcus.*

Two patients were found to have serological evidence of hydatid disease on the basis of a titre in excess of 1:320 in the haemagglutination test; one of these patients also had a low level of antibody in the complement fixation test. One case had a history of a lower lung lesion and the other had lower lung consolidation.

Serological evidence of invasive amoebiasis was found in three patients on the basis of a titre of greater than 1:128 in the haemagglutination test. All patients had a history of a liver abscess. Two of these patients lived overseas and the other was from Central Queensland.

Two patients were diagnosed as having toxoplasmosis on the basis of titres obtained from the fluorescent antibody test. One patient showed a diagnostic rise in antibody titre with IgM antibody present in the second specimen. He developed an illness 2 months after a transplant operation. The other patient showed high antibody titres by both fluorescent and haemagglutination testing with IgM antibody also detected by the fluorescent test. He presented with a history of fever and swollen glands and had cat contact.

Meatworkers Survey

A prospective collaborative study with the Department of Social and Preventive Medicine of the University of Queensland and the Workers Compensation Board which was commenced last year is still continuing. Baseline titres for the recognized zoonotic infections and a bank of sera are being established for these workers to assist in the diagnosis and investigation of future febrile illnesses.

Leptospirosis

The number of cases with serological evidence of recent leptospiral infection detected in Queensland was 77, a decrease of 57 on last year. There were 77 cases in 1979–80 and 86 in 1980–81. There were also 15 cases from New South Wales and 26 from the Pacific Islands. The Fiji Ministry of Health submitted 408 sera, and 65 were found to have a titre of at least 1:50. Serological evidence of recent infection was found in 23. The geographical distribution and the serogroup of the infecting leptospires of these cases are set out in Table 4. This year the table differs slightly from previous years in that the serogroups are listed alphabetically and the Autumnalis serogroup has been divided into Autumnalis, Djasiman and Louisiana whilst the Hebdomadis serogroup has been divided into Hebdomadis, Mini and Sejroe.

The occupational distribution of the cases is set out in Table 5.

Thirty-eight sera received from the Institute of Medical and Veterinary Science, Adelaide, were tested for leptospiral antibodies. These were collected from sentinel calves held at the Quarantine Station, Port Adelaide, prior to being shipped to the Cocos Islands. Five of these had titres to serovar *hardjo.*

Ninety-six bovine sera were received from the Oonoonba Veterinary Laboratory, Townsville, for screening tests for leptospiral antibodies. The samples were collected to investigate the cause of abortion in dairy cattle on the Atherton Tableland where some farms were experiencing in excess of 10 per cent abortions annually. Sixty of the sera had titres of 1:50 or greater to one or more of the following serovars:—*celledoni, hardjo, pomona* and *tarassovi.*

Arbovirus Serology

There were 401 cases of epidemic polyarthritis caused by Ross River virus diagnosed this year. The number of cases occurring in Queensland was the same, but there were only 13 cases from New South Wales this year compared with 114 last year. The geographical distribution of the cases is shown in Table 6. The diagnosis of the majority of these cases was based on the demonstration of the presence of Ross River-specific IgM antibody using an enzyme immunoassay (EIA) method. This EIA test is now performed on all sera demonstrating a titre of 1:20 or greater, when tested by the haemagglutination inhibition (HI) method. Those sera which were unsuitable for EIA testing or demonstrated a low level of EIA IgM antibody were tested by sucrose density ultracentrifugation for Ross River-specific IgM antibody.

Of 62 cases of dengue diagnosed in the laboratory this year, 46 were from Queensland. Forty-four of these occurred in the period July–October, 1982, and of these 30 were from Cairns, 13 from Townsville and one from Thursday Island. The remaining two occurred in April, 1983. Both had other conditions and gave no history of typical dengue fever.

The first case, a 73-year-old woman, was from the Rockhampton district. She had been admitted to a Brisbane hospital for investigation of dementia. On admission she was found to have a fever. Serological tests demonstrated the presence of dengue-specific IgM antibodies to types 1, 2 and 3. The other case, a 66-year-old male, was from Kingaroy. A history of recent local travel prior to onset of illness was not available as the patient had poor memory recall. No *Aedes aegypti* were found in a brief survey of the domestic environment. He did however give a history of having dengue as a child. Serological tests demonstrated dengue 1 specific IgM antibodies. Neither of these patients had travelled overseas.

There were three further cases demonstrating only dengue 3-specific IgM antibody which, together with three cases in 1981–82, make a total of six patients demonstrating this unusual pattern. All these patients appeared to experience a secondary type antibody response as evidenced by complement fixation (CF) and HI antibody responses in acute and convalescent sera. Results from the Vector-Borne Diseases Division, CDC, Fort Collins, confirmed our results. Neutralization tests were not performed so it has not been possible to identify the current infecting dengue virus in these six cases.

One case of possible dengue 2 infection occurred in the Cairns area. This was a 23-year-old female from Gordonvale. Serological tests (both HI and CF and IgM) indicated a primary dengue infection of type 2.

Four cases of dengue from the Solomon Islands and nine from Papua New Guinea were diagnosed by the specific IgM method. Three additional cases were submitted, one from Brisbane and two from New South Wales. Two of these patients had been to New Guinea and the third to Tahiti.

Six Kunjin virus infections were diagnosed. Two were from the metropolitan area with no history of recent travel outside Brisbane and one each from Roma, Murgon and Weipa in Queensland and Glossup in South Australia. Four had symptoms of joint pains, three complained of lethargy, while the case from South Australia was being investigated for encephalitis symptoms.

There was one case of Japanese B encephalitis. The patient, a 20-year-old female, was admitted to hospital with suspected herpes encephalitis. A low level rise in antibody level for Australian encephalitis virus, together with the history of recent travel to Bali, warranted further investigation. Specific IgM antibodies to Japanese B encephalitis virus were demonstrated using antigen supplied by QIMR.

The laboratory diagnosed a case of infection with Kokobera virus this year. The patient, a 40-year-old female from Mossman, presented with skin rash which was a generalized erythematous macular type rash covering the whole body in discrete spots and lasting 48 hours. She also complained of joint pain in the knees, elbows and back, with inflammation and diminished movement particularly in elbows and hips. On examination she had an upper respiratory tract infection. Serological tests showed a diagnostic rise for group B arboviruses. Kokobera specific IgM antibodies were demonstrated, but all other group B arbovirus IgM antibodies were negative.

This laboratory is now making all arbovirus antigens required for routine testing using new born mice. Tissue culture antigens as required for Ross River EIA method are being prepared with the assistance of Dr Aaskov at the QIMR.

LEPTOSPIROSIS REFERENCE LABORATORY

Cultures from the reference collection and rabbit antisera to reference strains were sent on request to institutions in Queensland and other Australian States, India, Netherlands, New Zealand, New Caledonia and Singapore. Technical information was supplied to institutions in Queensland, New South Wales, Victoria, Western Australia and New Zealand.

Dr L. Verstuyft, World Health Organisation representative to the South Pacific, Suva, Fiji, and Mr R. Metcalfe, National Health Institute, Wellington, New Zealand, visited the laboratory.

Of the 14 isolates received during 1981–82 which remained to be serovared, two were identified as serovar *autumnalis,* one as serovar *copenhageni,* three as serovar *hardjo,* one as serovar *javanica,* five as serovar *pomona* and two as serovar *zanoni.*

A further 16 isolates were received from Regional Veterinary Laboratory, Wollongbar (1); Regional Veterinary Laboratory, Bairnsdale (4); Animal Health Laboratory, Department of Agriculture, Perth (5); Massey University, Palmerston North, New Zealand (1); Commonwealth Health Laboratory, Cairns (1); Monash University, Melbourne (1); University Pertanion Malaysia, Selangor, Malaysia (3). Three of these strains have been identified as serovar *hardjo* and six as serovar *pomona.*

Of the 25 isolates submitted by the WHO/FAO Collaborating Center for the Epidemiology of Leptospirosis, Atlanta, U.S.A. during 1981–82 for confirmation as new serovars, one has been verified. The other 24 are still being investigated.

A further three isolates were submitted for confirmation as new serovars. Two of these were received from the Collaborating Center in Atlanta and the other from the WHO/FAO Collaborating Centre for Reference and Research on Leptospirosis, Amsterdam, Netherlands.

Mr N. D. Stallman is secretary of the Subcommittee on the Taxonomy of *Leptospira* and attended subcommittee meetings held during the XIII International Congress of Microbiology, International Union of Microbiological Societies, Boston, U.S.A. A draft which he had prepared on a standard method for the identification of serovars was submitted to the meeting and approved. This also included a standard method for the microscopic agglutination test.

A draft of a catalogue of published serovars was also submitted to the meeting. The serovars were listed alphabetically in their serogroups, and the serogroups were also listed alphabetically. This differs from previous lists which were tabulated in chronological order. Further discussion is required to resolve several problems relating to the valid publication of a number of serovars. It is expected that the catalogue will be completed prior to the next meeting in Manchester in 1986.

A revision of the serogroups was also made. The Autumnalis serogroup was divided into three serogroups—Autumnalis, Djasiman and Louisiana and the Hebdomadis serogroup was also divided into three serogroups—Hebdomadis, Mini and Sejroe.

Mr Stallman was a contributor to Guidelines for the Control of Leptospirosis, WHO offset publication No 67 which was edited by S. Faine.

VIROLOGY

Virus Isolations

The laboratory received 11 646 specimens for virus isolation, an increase of nearly 44 per cent over last year. A total of 3 151 viruses were detected in 2 949 patients (Table 7).

The clinical syndromes with which the viruses were associated are shown in Table 8.

Influenza activity was more evident than in the previous year. Influenza A (H3N2) and B appeared concurrently in July, peaked in August and faded out in November. An epidemic of influenza A in a Brisbane boarding school was investigated. Influenza A was isolated post mortem from a 6-year-old child and influenza B from the lung of a 69-year-old leukaemic patient. The single influenza A (H1N1) strain was isolated in May, 1983.

The epidemic of respiratory syncytial virus commenced in March, one or two months earlier than in southern States. It was more severe than in 1982 (337 isolations compared with 229) and continued largely unabated through May and June, whereas the 1982 season peaked in May.

As in 1980, the dominant enterovirus was Echovirus 11. This virus was isolated from 168 patients with aseptic meningitis including 60 neonates. The activity of this virus was greater and extended over a longer period (November to June) than in 1980. The high incidence of neonatal infections, three of which were fatal, is an indication of the dangers which this virus poses for this age group and of the need for hospital nurseries to carefully monitor neonates for this infection during its active periods and take steps to limit nosocomial infections.

The warmer months also saw the reappearance of Enterovirus 71 after an absence of several years. It was isolated from two neonates, 10 other patients with aseptic meningitis, two with gastroenteritis, 13 with with vesicular lesions (as in human hand, foot and mouth disease) and three with respiratory infection. There was a concurrent but smaller epidemic of human hand, foot and mouth disease (Coxsackievirus A16) which was difficult to distinguish from Enterovirus 71 clinically and virologically.

Herpes simplex virus was the most frequently encountered with 1 186 isolations compared to 612 last year. The large increase in isolations from genital sources at least partly reflects the heightened publicity afforded this infection and the fact that it has become a notifiable disease. Herpes simplex type 1 was isolated from the brain of a 1-year-old and type 2 from the brain biopsy of a neonate.

Hepatitis Serology

A total of 8 025 sera were tested for hepatitis B surface antigen and 261 sera were found to be positive (Table 9). The test for hepatitis "e" antigen was performed on 173 of the surface antigen positive sera, and 91 of these had the "e" antigen.

The increase in numbers from last year was mainly due to an increase in the numbers of specimens from jaundiced patients, routine antenatal cases and drug abusers.

Following the practice of last year, all sera except those from renal and antenatal patients have been tested for core and surface antibodies. Of the 4 704 antigen negative sera tested, 1 023 had core or surface antibodies or both (Table 10).

A most striking result was seen in those with a history of drug abuse. Of the 477 patients tested, a total of 77 per cent had evidence of present or past infection.

Hepatitis A IgM antibody tests were performed on 2 323 sera and 125 of these were found to be positive indicating hepatitis A infection in the preceding 7 to 9 weeks.

Clostridium difficile Toxin

Clostridium difficile toxin was detected in 137 of 1 201 faecal samples assayed in tissue culture. Positive tests were confirmed using neutralization with *Cl. sordelli* antitoxin.

Chlamydia trachomatis Isolation

The isolation of *Chlamydia trachomatis* commenced in March, 1983, and 1 102 specimens mostly of genital origin were tested. The organism was isolated from 187 genital swabs (94 male, 93 female), from the rectal swab of a male, an eye scraping of a patient with trachomatous like lesion and nasopharyngeal aspirate of a baby with pneumonia. The association of *Chlamydia trachomatis* with pneumonia in infants less than 6 months of age has been well documented. The child is infected from the genital tract during parturition and subsequently presents as pneumonia.

BACTERIOLOGY

The number of specimens received during the year increased by 15·8 per cent to 48 087, and 159 581 tests were carried out. On several occasions during the year, difficulties were experienced in handling the volume of work, particularly food samples, and restrictions had to be introduced.

Cholera

This year *Vibrio cholerae* serogroup 01 has been isolated from faecal specimens obtained from three patients who had not travelled outside Australia.

On 16th January the Australian Health Laboratory in Rockhampton isolated a toxigenic strain of *V. cholerae*, biotype *eltor*, serogroup Inaba from a 32-year-old severe diabetic who had been admitted to hospital suffering from vomiting and diarrhoea. No vibrios were grown from contacts of the patient or from the reticulated water supply. However, investigation of food sources of the patient led to the discovery that lettuces cultivated in a local market garden were being spray irrigated with creek water containing the 01 vibrio. A specimen of the irrigation water, taken from a stand pipe, and two out of five heads of lettuce samples from the market garden, yielded toxigenic *V. cholerae*, biotype *eltor*, serotype Inaba. Since the patient consumed lettuce cultivated in that garden, it is postulated that, because of his debilitated condition, he contracted the infection from lettuce, in which was trapped creek water containing the 01 cholera vibrio.

A non-toxigenic *V. cholerae*, biotype *eltor*, serotype Ogawa, was isolated by the Australian Health Laboratory in Rockhampton on 29th January, 1983, from the faeces of a 20-month-old boy. The child was admitted to hospital with severe vomiting and diarrhoea. *Salmonella* sp. was also isolated from this patient and as the vibrio strain was non-toxigenic, it was probably not the causative agent of the child's diarrhoea. No vibrios were grown from family contacts of the patient, and all associated water samples were negative for the 01 vibrio.

On 7th March, *V. cholerae*, biotype *eltor*, serotype Inaba, was isolated from two faecal specimens from a 3-year-old boy admitted to Beaudesert Hospital with severe gastroenteritis. Investigation revealed that he had been bathing in the Logan River near the 11 Bogan bridge. Vibrios of the same serotype have been isolated frequently from water samples taken near this bridge, the most recent isolation being on 22nd February, 1983.

Since 1977, *V. cholerae* serogroup 01 has been isolated from seven Queensland people with no history of overseas contact. Two isolations were made in the month of January, four in the month of February and one in the month of March.

Surveillance of water supply intakes throughout Queensland for *V. cholerae* has continued. *V. cholerae*, serogroup 01, has been isolated from 39 environmental samples over the period 19th October, 1982 to 25th May, 1983. *V. cholerae*, biotype *eltor*, serotype Inaba, was isolated from five of the 174 sewerage swabs examined. One isolate was obtained from a sewerage pumping station in Rockhampton. The swab was placed in the sewer approximately 2 weeks after confirmation of a cholera infection in the area. Another isolate was obtained from a sewerage plant serving a small closed community in the Palen Creek area. No enteric infections were reported by the people in the community. Vibrios of the same biotype and serotype have been recovered on previous occasions from a nearby creek which is part of the Logan River system. *V. cholerae*, biotype *eltor*, serotype Inaba, has been isolated on three occasions from the Beaudesert sewerage treatment plant. Two of these isolates were at the time a proven case of cholera was in the Beaudesert Hospital, and the third occasion was 2 weeks before the child was admitted to hospital.

Thirty isolates of *V. cholerae*, serogroup 01, have been recovered from the surface water and four strains have been isolated from 500 aquatic plants collected at water sampling sites. Three of the water isolates were serotype Ogawa, and the remaining water strains and all the aquatic isolates were serotype Inaba. The Ogawa cultures were obtained from a dam at Clermont and a creek in the Rockhampton area. Twelve of the water strains and two of the isolates from aquatic plants have been found to produce enterotoxin when tested by an ELISA assay.

Tests on the remaining strains are still in progress. The water and aquatic weed samples found to contain the 01 vibrios came from the following sites:—Logan River (19), Tinana Creek (1), Limestone Creek (3), Ramsey Creek (1), Bremer River (1), Lion Creek (1), dam on Theresa Creek (2), Albert River (1), Lake Kurwongbah (4) and Mary River (1). Six of these sites, the four creeks and two dams, are new areas in which 01 vibrios have been detected. The dam on Theresa Creek in the Clermont area is now the most northern and western area from which 01 vibrios have been detected in Queensland.

No isolations were made from reticulated water.

Toxigenicity studies were carried out by Dr R. Luke, Latrobe University, Melbourne.

Enteropathogens

There were 36 isolations of *Salmonella* sp. from food and environmental sources (Table 11) and 56 isolations from faecal specimens. One strain of *Salmonella typhi* was referred to the laboratory from Thursday Island. It had been grown from the blood of a female patient from an island in the Torres Strait.

Fourteen of the environmental isolations of *Salmonella* sp. were associated with a survey of 19 lettuce farms which use untreated water from creeks and rivers for irrigation purposes. No 01 vibrios were detected in these waters.

Bacterial enteric pathogens recovered from faecal material during the year are listed in Table 12.

All isolates of Salmonella were sent to the Salmonella Reference Laboratory, Institute of Medical and Veterinary Science in Adelaide for serotyping. Phage typing on the *S. typhi* culture was carried out by the Medical Diagnostic Unit, University of Melbourne.

Neisseria

In November, 1982, a small laboratory in the newly renovated Enthetic Diseases Clinic was completed. Two technicians from the main laboratory are provided on a rotational basis to staff this new facility which is open from 8.00 a.m. to 6.00 p.m. on week days. This new laboratory provides results of microscopic examination of smears, exudates and urines before the patient leaves the clinic. There has been a very large increase in the laboratory work associated with this clinic. The laboratory continues to participate in a national programme recording minimal inhibitory concentration (MIC) of *Neisseria gonorrhoeae* strains to penicillin.

N. gonorrhoeae was isolated from 659 specimens, an increase of 217 over the isolations from the previous year. Hospitals and private laboratories referred a further 254 isolates for MIC tests to penicillin. Nine hundred and one MIC estimations were carried out (Table 13) and the information sent to the collating centre of the *N. gonorrhoeae* surveillance programme.

Forty-five of the strains produced β- lactamase (5%), and of these 28 were traced to South-east Asian contacts, and seven were from local contacts. Information is not available on the remaining 10 cases.

There were 38 isolations of *N. gonorrhoeae* from pharyngeal swabs (12 from males and 26 from females) and 51 from rectal swabs (49 from males and 2 from females).

Neisseria meningitidis was isolated from genital sites of males on five occasions. Isolations were made from 229 throat swabs (19 males, 210 females) while screening for *N. gonorrhoeae*.

No isolations from cerebrospinal fluid were made or received.

Diphtheria

There were no isolations of toxigenic *Corynebacterium diphtheriae* although several non-toxigenic strains were isolated in the laboratory and others were referred to the laboratory for toxin testing. Most of these strains were from skin sites.

Melioidosis

Pseudomonas pseudomallei was identified on five occasions. One isolation was from a lesion on the wrist of a man who worked in a Darwin meatworks but was holidaying in Brisbane. Four cultures were referred for confirmation. One was isolated from a sputum sample from a patient at Maryborough Hospital who has previous history of melioidosis. Another, isolated from a blood culture from a multiple myeloma patient, was referred by a private pathology laboratory. Two cultures were isolated from blood specimens at Thursday Island hospital. One of the patients was a male in his mid-thirties who presented with a PUO and who recovered with antibiotic therapy. No information is available for the second patient at Thursday Island.

In addition, there has been an on-going survey involving the testing for the presence of *P. pseudomallei* in chlorinated and unchlorinated waters from areas in which melioidosis has been detected in piggeries. No isolations of *P. pseudomallei* have been made from 91 waters received from Biggenden, Gayndah, Mundubbera and Eidsvold shires.

Amoebic Meningoencephalitis

Following the death of a 10-month-old boy from Charters Towers on 3rd December from primary amoebic meningoencephalitis, six water samples were received for examination for the presence of *Naegleria fowleri*. These samples included wading pool water, reticulated water drawn through a hose used to fill the wading pool and water from a nearby creek used locally as a swimming pool.

N. fowleri was grown from the reticulated water drawn through the hose. This was the second confirmed case of primary amoebic meningoencephalitis to be recorded in Queensland.

MYCOLOGY AND PARASITOLOGY

Pathogenic fungi isolated or detected during the year and parasites found in clinical specimens are listed in Tables 14 and 15.

MYCOBACTERIOLOGY

Introduction

The laboratory examined a total of 23 174 specimens. This included 10 sputa for examination for asbestos bodies and 93 cultures for identification and/or sensitivity testing.

Again the mycobacteriology laboratory has been active as a teaching centre. Eleven nursing sisters from Prince Charles Hospital and country Chest Clinics have visited, and pathology registrars from Greenslopes and Princess Alexandra Hospitals have also spent time in this section.

Demonstration material such as slides, cultures and positive sputum has been supplied to the Queensland Institute of Technology and the University of Queensland.

Positive smears have been sent to various laboratories for use as quality control for Ziehl-Neelsen staining.

Senior staff have attended pathology seminars and conferences and contributed information on mycobacterial skin lesions for a paper presented in Sydney.

Diagnostic Tests

Mycobacterium tuberculosis was isolated from material submitted from 102 patients. Fifteen isolates were from non-pulmonary sites—pus/lymph nodes (6), urinary tract (4), cerebrospinal fluid (2), vertebra (1), synovial fluid (1) and peritoneal fluid (1).

Patients from the Northern Territory accounted for 17 *M. tuberculosis* isolates, five of which were from non-pulmonary sites.

Mycobacterium bovis was isolated from pulmonary material from two male patients. There were no isolations of *M. bovis* (BCG).

Mycobacterium africanum was grown from pulmonary specimens from a 22-year-old female from the Philippines. This organism has properties resembling both *M. tuberculosis* and *M. bovis* and has not been isolated here previously. It is endemic in countries on the north-west coast of Africa. Her source of contact is not known.

There was a total of 237 atypical mycobacteria identified from 235 persons who had multiple tube growth on culture (Table 16).

Organisms of *M. avium-M. intracellulare-M. scrofulaceum* (MAIS) complex were isolated from 175 persons and 128 were serovared (Table 17).

A repeat test is done when the bacteriology remains positive. Because of this, 211 strains were serovared. The most common serovars were 9, 14, 16 and 42. Several patients were found to be excreting two or three different types.

There were 19 new patients with clinically significant pulmonary disease due to MAIS infections. They were smear positive and had more than three isolates of the same serovar. There were also 63 previously diagnosed patients who were bacteriologically positive again this year.

Six children (five females and one male) had MAIS isolated from lymph node material. Two were serovar 42; others were serovar 43, 22, 13 and auto-agglutinable. An elderly male had disease of the wrist synovium due to MAIS serovar 42.

Mycobacterium kansasii was isolated from pulmonary specimens from four patients (two females, two males). A male and a female patient were previously positive in 1971 and 1980 respectively, and had relapsed. Another patient with hairy cell leukaemia also had *M. kansasii* isolated from a liver biopsy and gastric aspirations.

Mycobacterium chelonei was grown from material submitted from 15 persons. Only one was considered to have clinically significant pulmonary disease and another had been positive previously. Another three persons had cutaneous lesions due to *M. chelonei*. The sites infected were arm, shoulder and eye.

Mycobacterium fortuitum was recovered from material submitted from 21 persons. Only one person was considered to have clinically significant pulmonary disease. However, there were six persons who had cutaneous lesions or abscesses due to this organism. The sites infected were—foot (2), heel, arm, breast and mandibular gland.

Mycobacterium ulcerans was grown from tissue from the left ankle of a male patient in the Rockhampton area.

Mycobacterium haemophilum was grown from two specimens of tissue taken from an infected finger of a middle-aged female. No chemotherapy was given and the lesion healed after resection.

Mycobacterium marinum was the cause of a granulomatous lesion on the knee of a teenage male.

Nocardia species were grown from three specimens—post mortem lung tissue from a baby, material from a hip sinus and a specimen of bronchial washings.

Sensitivity Tests

There were 157 sensitivity tests done on isolates of *M. tuberculosis*, *M. bovis* and *M. africanum*. Repeat tests are done when a patient still has a positive sputum after 3 months. Forty-six of these were cultures submitted from Papua New Guinea. Initially, four anti-tuberculosis compounds, streptomycin, isoniazid, ethambutol and rifampicin are tested. If it is suspected that the organism may be resistant to antibiotics, then eight compounds are tested.

There were 83 patients with *M. tuberculosis* who were known to have had no previous anti-tuberculosis chemotherapy. Primary drug resistance was found in two patients only. One isolate was resistant to streptomycin and the other to isoniazid.

Forty-nine strains of atypical mycobacteria were tested for sensitivity to eight anti-tuberculosis compounds.

Disc sensitivity tests to a broad range of anti-microbial compounds were done on 15 clinically significant isolates of *M. fortuitum*, *M. chelonei*, *M. marinum*, *Nocardia* species and 14 of the MAIS isolates making a total of 29.

Special Projects

(i) Participation is continuing in two international co-operative studies being conducted by the International Working Group on Mycobacteriology Taxonomy, i.e. the Open-Ended Study of Slowly-Growing Mycobacteria and *M. fortuitum-M. chelonei* Study. Thin-layer chromatography has been introduced on a limited scale and it is hoped that a photographic recording system can be obtained in the near future. The technique will prove a valuable adjunct to serology and biochemistry, especially the definition of new serovars and the investigation of problem cultures.

(ii) Following a report from the United States that growth of *M. tuberculosis* was enhanced by the addition of sodium selenate to Middlebrook 7H11 agar, a short study was carried out to evaluate its effect in Lowenstein-Jensen (L-J) medium. Stock strains of *M. tuberculosis* and a representative selection of most species were cultured onto L-J, L-J with 0·5 per cent pyruvate and L-J with 5 ug/ml sodium selenate. With the strains tested there was no evidence that sodium selenate caused more rapid growth and it has been decided not to make any change to existing media (Middlebrook 7H11 is more expensive than L-J and requires carbon dioxide incubation). These observations have been supported in a recent publication by workers in Washington DC, U.S.A.

(iii) In recent years the laboratory has been requested to test the anti-mycobacterial activity of various disinfectants as a basis for gauging their suitability for use in Queensland hospitals and laboratories. While much effort has been directed to standardizing procedures for testing disinfectants against bacteria such as *Staphylococcus aureus, Pseudomonas aeruginosa* and *Escherichia coli,* there is no standard method for use with *M. tuberculosis. The Therapeutic Goods Act* (TGA) test has general acceptance throughout Australia, and a modification of this method has been used at the State Health Laboratory for investigating mycobactericidal properties of agents submitted for evaluation. Results have shown that some disinfectants which "pass" the routine TGA test are "failures" against *M. tuberculosis.* It seems desirable that disinfectants used in most laboratory situations should be effective against mycobacteria and it is proposed to include such a requirement in future disinfectant standards for Queensland. The modified TGA test for testing *M. tuberculosis* has been submitted for consideration.

(iv) Because pulmonary infections with MAIS are usually refractory to therapy with anti-tuberculosis agents, researchers are seeking other therapeutic compounds. Members of the aminoglycoside and sulphonamide groups have shown promise, based on results of disc diffusion tests on agar, but it is difficult to predict the clinical response. The prospect of severe side-effects from long-term use of such compounds has made clinicians reluctant to carry out clinical trials. So that the *in vitro* sensitivity could be measured more accurately, broth dilution tests were carried out with 50 local MAIS isolates against amikacin, minocycline, sulphathiazole, sulphamethoxazole and clofazamine. For each compound six drug concentrations were tested, centred around the maximum serum level attainable. The basic medium was Mueller-Hinton broth with OAD enrichment. The strains were generally uniform in their response—Minimal Inhibitory Concentrations for amikacin and sulphathiazole were near serum levels, while values for minocycline and sulphamethoxazole were much higher. Clofazamine, a riminophenazine derivative which is used in dapsone-resistant leprosy, caused inhibitions at levels comparable to those effective against *M. tuberculosis.* It is hoped that some clinical evaluation of the findings can be carried out. Results of this work were requested by physicians at Royal North Shore Hospital, Sydney, with the view to using some of the agents for chemotherapy on a problem patient with pulmonary MAIS disease.

(v) An enlarged series of tests for the identification of strains of Nocardia to species level is being organized. The scheme chosen is that of Mishra, S. K. (J. Clin. Microbiol., 1980, *11*: p 728) and involves a series of over 30 tests, including decomposition, hydrolysis and resistance tests, acid production, and colony and bacilli morphology.

Reference Laboratory

Cultures and/or antisera were supplied to the Animal Research Institute, Brisbane; the University of Sydney; the Veterinary Research Station, Glenfield; the Institute of Clinical Pathology and Medical Research, Westmead; and the State Health Laboratory Service, Perth.

Cultures for identification were received from St Vincent's Hospital, Darlinghurst; the Institute of Clinical Pathology and Medical Research, Westmead; the Mycobacteria Reference Laboratory, Fairfield; the Veterinary Research Institute, Parkville; the Queen Elizabeth Hospital, Woodville; the Institute of Medical and Veterinary Science, Adelaide; and the Wellington Hospital, Wellington, New Zealand.

Cultures isolated from animals and fish were submitted for identification from Oonoonba Veterinary Laboratory, Townsville and the Veterinary School, University of Queensland. An isolate from post-mortem lung material of an 86-year-old elephant was identified as *M. tuberculosis.* An isolate from fatty tissue from a domestic cat was identified as *M. fortuitum.* Another culture grown from fish spleen resembles *M. chelonei.*

The laboratory procedure for decontamination and culturing, together with tests for identification of mycobacteria, were sent to the Medical School, University of North Sumatra, Medan, Indonesia, at their request. A request was also received from the Microbiology Department, Faculty of Medicine, University of Peradeniya, Kandy, Sri Lanka. Over 30 different local and reference species of mycobacteria were sent with information on identification procedures.

HAEMATOLOGY

The overall number of tests performed by this section has remained relatively constant this year.

The demand for the radio-immunoassay for human chorionic gonadotrophin has increased by more than 300 per cent, however, with numbers rising from 384 to 1 350.

During the year, 1 857 blood films were examined for malaria. These include 100 positive specimens received from other laboratories for review and referral to the Commonwealth Institute of Health. Seventeen cases of *Plasmodium falciparum* and 10 cases of *Plasmodium vivax* were detected in 1 757 specimens submitted directly. All the cases of *P. falciparum* and eight of the cases of *P. vivax* were from the continuing screening programme undertaken in the Torres Strait Islands.

A total of 277 samples were examined for the presence of abnormal haemoglobin. Eight cases of ∞-thalassemia, 41 cases of β-thalassemia, one haemoglobin S trait, one haemoglobin Lepore and 10 cases of glucose-6-phosphate dehydrogenase deficiency were detected.

A total of 14 313 patients attended the laboratory for specimen collection in 1982–83.

BIOCHEMISTRY

A number of the tests performed in this section have been modified, replaced or are in the process of being reassessed.

The cerebrospinal fluid Lange colloidal gold test for neurological disease has been replaced by a profile which includes total protein, immunoglobulin G: albumin ratio and electrophoresis for oligoclonal bands.

A commercial glycosylated haemoglobin test with calibrators and controls has been introduced and measures haemoglobin A_{1c}. Other kits available measure three subfactors HbA_{1a}, $_{1b}$ and $_{1c}$ in red cells and therefore do not reflect true blood glucose concentrations experienced during the life of a red cell.

In January this year, estimation of total urinary porphyrins for employees with occupational exposure to lead was commenced for the Division of Industrial Medicine. That division was also involved in screening farmers in the Stanthorpe region for the effects of spraying herbicides. Serum cholinesterase and red cell cholinesterase were performed on samples from these patients.

Two of the staff members aid the Country Hospital Laboratory services in the areas of biochemistry quality control and maintenance and troubleshooting of laboratory equipment.

CYTOGENETICS

The laboratory analysed 331 amniotic fluid samples, 319 blood samples and 11 bone marrows and carried out 15 tests for the X_q 27 fragile site. The strict clinical guidelines for the acceptance of specimens were tightened slightly this year, leading to a small drop in the number of amniotic fluid samples analysed.

The abnormalities detected are listed in Table 18.

A new test for detection of X-linked mental retardation was introduced on a routine basis in January, 1983. This involves examination of 50 or 100 metaphase cells for evidence of a break at band $_q27$ in one of the X chromosomes. All samples from males with a history of mental retardation and from females with a strong family history of retardation are tested. A positive test is diagnostic of the condition in males and the carrier state in females.

The State-wide register of chromosome abnormalities is being maintained.

Staff members continue to be involved in teaching basic cytogenetics to medical students and to students at the Queensland Institute of Technology.

FORENSIC BIOLOGY

The laboratory provides forensic biology services for Queensland. Scientists give evidence in court in all provincial cities as well as the metropolitan area. Members are occasionally requested to assist Scientific Police in specialized crime scene investigation, but this assistance is kept to a minimum to enable scientists to carry out their primary role.

There has been a further increase in the workload of the section in the past year, reflecting a greater awareness by the Police and Courts of the value of scientific evidence.

A Sexual Assault Investigation Kit has been prepared and distributed. This should result in an improved service in crimes of this nature.

Forensic biology services were provided for the Papua New Guinea Constabulary.

Mr Pakalani from the Pathology Department of Vaiola Hospital in Tonga spent 3 weeks in the section, discussing laboratory techniques. Staff from .the section also assisted in organizing a Blood Splash Pattern Workshop in conjunction with the Police Scientific Section.

NEONATAL SCREENING SECTION

Screening tests for hyperphenylalanaemia and congenital hypothyroidism were performed on 40 012 neonates this year. The increase is partly because the Northern Territory is now included in the programme. Two cases of phenylketonuria and 13 cases of congenital hypothyroidism were detected.

State-wide screening of all infants for galactosaemia and cystic fibrosis was introduced during the year. Tests for these are performed on the blood samples collected for phenylketonuria and hypothyroidism testing. Since these tests were introduced, 14 412 infants were tested for galactosaemia and 11 900 for cystic fibrosis. Three of these infants were found to have galactosaemia and five gave positive results for cystic fibrosis.

All the above abnormalities were detected in the first month of life and appropriate medical therapy instituted.

A tape/slide presentation on neonatal screening blood collection has been prepared and laboratory staff have given presentations on Neonatal Screening at a number of scientific meetings.

Mr F. Bowling has been appointed to the Australian Collaborative Working Party on neonatal screening.

COUNTRY PATHOLOGY SECTION

The new pathology laboratory at Kingaroy Hospital was completed in early November and commenced service on 22nd November, 1982. This is a new service to the South Burnett region and the laboratory will also cater for the Nanango, Murgon, Wondai and Cherbourg Hospitals. Previously, all public pathology was forwarded to Toowoomba Commonwealth Health Laboratory and State Health Laboratory, Brisbane. The pathology laboratory and other hospital facilities were officially opened by the Premier, Mr Bjelke-Petersen, on 4th December, 1982.

New laboratory facilities are under construction at Ipswich and Longreach Hospitals. These are expected to be completed by December, 1983. Southport Hospital is preparing for Stage II of the hospital redevelopment which will include a major extension to the pathology laboratory.

The Mount Isa and Bundaberg laboratories have taken delivery of Gemini centrifugal analysers. Five country laboratories now use this instrument for automating biochemistry procedures. Advances in technology have resulted in old flame photometers being replaced by ion selective electrodes. With the introduction of relatively inexpensive semi-automated instruments in all smaller laboratories, manual methods for performing haemoglobin and white cell counts are no longer used.

The servicing and repair of instruments in country laboratories has been improved with the aid of a laboratory technician from the biochemistry section of State Health Laboratory. This technician works closely with the Electronics Section of the Division of Health and Medical Physics. His role is to liaise with country staff concerning instrument problems and to screen instruments en route to Health and Medical Physics for repair.

The Apple II microcomputer system has been introduced to country pathology laboratories. The initial role of the system is to aid the workload in the biochemistry section by interfacing to the spectrophotometer. Programming for the system has been provided by the ADP Planning Unit of the Health Department.

The first year of the lone scientist relief scheme has proven to be successful. Four periods of relief at regular intervals were made available to the lone scientist laboratories. The scientists at these laboratories are on call 24 hours a day throughout the year.

The quality control programmes for biochemistry and haematology continue to be effective. A programme for microbiology is now conducted at regular intervals.

The section is appreciative of the continuing support of the various sections of the State Health Laboratory and pathology departments of Royal Brisbane and Princess Alexandra Hospitals. The section continues to co-operate with State Stores Board in arranging contracts for laboratory reagents and equipment. The co-ordinator has visited each of the 18 country hospital laboratories at least once during the year.

WOLSTON PARK LABORATORY

The number of tests performed in this branch laboratory has remained relatively constant this year.

Staff are collecting and processing specimens for a project on transketolase variants as a predisposing factor leading to the Wernicke-Korsakoff Syndrome which has been organized by research staff at the Royal Brisbane Hospital.

The laboratory continues to see small outbreaks of shigellosis and salmonellosis and parasitic diseases and a range of medical conditions.

INSTITUTE OF FORENSIC PATHOLOGY

During the year, 1 242 coronial autopsies were performed. This represents a slight increase on last year. Registrars undertaking training in Anatomical Pathology in Brisbane hospitals continue to rotate to the Institute.

Staff pathologists went to country areas on 37 occasions to perform 47 autopsies. The majority of these were homicide cases and six cases were victims of five aircraft accidents. Two autopsies were performed at the Institute on victims of a further two aircraft accidents. Pathologists also make frequent trips to country centres to give evidence in court following the arrest and charging of alleged offenders in homicide cases.

On four occasions in the past 12 months, staff pathologists have been required to travel to country areas to exhume the bodies of homicide victims from shallow graves and to perform the subsequent autopsies. In three out of the four cases, sufficient injuries were found on the decomposed remains of the victims to indicate a homicidal cause of death.

A staff pathologist was also able to assist the Northern Territory Police to investigate the rape and murder of two young girls near Darwin in June, 1983.

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TABLE 1

GEOGRAPHICAL DISTRIBUTION OF Q FEVER CASES

District	Number
Queensland—	
Metropolitan	41
Moreton	34
Maryborough	9
Rockhampton	10
Mackay	4
Townsville	7
Cairns	13
Darling Downs	15
Roma	2
North-West	2
Central West	1
South-West	2
Total 1982–83	140
Total 1981–82	153
New South Wales—	
Northern Rivers	6
New England	6
Newcastle	6
Total 1982–83	18
Total 1981–82	14
GRAND TOTAL	158

TABLE 2

OCCUPATIONAL DISTRIBUTION OF Q FEVER CASES

Occupation	Number
Meat Industry	92
Dairy Industry	11
Other	21
Unspecified	34
Total	158

TABLE 3

BRUCELLOSIS INFECTIONS ON SEROLOGICAL EVIDENCE

District	Number
Queensland—	
Metropolitan	2
Townsville	1
Total 1982–83	3
Total 1981–82	13

TABLE 4

GEOGRAPHICAL DISTRIBUTION AND SEROGROUP OF INFECTING LEPTOSPIRES IN 118 INFECTIONS

Serogroup	Number
Coastal Area of Queensland, North of Rockhampton—	
Australis	1
Canicola	1
Celledoni	3
Hebdomadis	3
Mini	1
Pomona	5
Pyrogenes	10
Sejroe	8
Tarassovi	1
Total 1982–83	33
Total 1981–82	73
Coastal Area of Queensland, Rockhampton to New South Wales Border—	
Australis	2
Celledoni	1
Grippotyphosa	1
Icterohaemorrhagiae	1
Pomona	7
Pyrogenes	1
Sejroe	14
Tarassovi	2
Total 1982–83	29
Total 1981–82	38
Darling Downs and Western Queensland—	
Pomona	10
Sejroe	5
Total 1982–83	15
Total 1981–82	23
New South Wales—	
Ballum	1
Pomona	4
Hardjo	10
Total 1982–83	15
Total 1981–82	12
Fiji—	
Australis	7
Autumnalis	1
Canicola	2
Icterohaemorrhagiae	11
Pomona	2
Total 1982–83	23
Total 1981–82	23
Papua New Guinea—	
Celledoni	1
Total 1982–83	1
Total 1981–82	3
Solomon Islands—	
Australis	1
Celledoni	1
Total 1982–83	2
Total 1981–82	..
GRAND TOTAL 1982–83	118
GRAND TOTAL 1981–82	172

TABLE 5
OCCUPATIONAL DISTRIBUTION OF LEPTOSPIRAL CASES

Occupation	Number
Meat Industry	30
Dairy Industry	10
Sugar Industry	1
Other	17
Unspecified	60
Total 1982–83	118

TABLE 6
GEOGRAPHICAL DISTRIBUTION OF 401 CASES OF EPIDEMIC POLYARTHRITIS

District	Number
Queensland—	
Metropolitan	51
Moreton	14
Maryborough	30
Rockhampton	50
Mackay	33
Townsville	81
Cairns	101
Darling Downs	7
Roma	5
Central West	3
South-West	2
North-West	9
Total 1982–83	386
Total 1981–82	387
New South Wales—	
Northern Rivers	3
New England	2
Sydney	6
Newcastle	2
New Guinea—	2
Total 1982–83	401
Total 1981–82	502

TABLE 7
VIRUS ISOLATIONS FROM CLINICAL CASES

——	Number of Patients with Virus Isolates	Number of Viruses Isolated
Influenza A virus	52	53
Influenza B virus	31	32
Parainfluenza virus	74	81
Mumps virus	19	21
Respiratory syncytial virus	337	354
Coxsackievirus A	27	29
Coxsackievirus B	20	25
Echovirus	231	311
Poliovirus	26	29
Other Enteroviruses	62	67
Rhinovirus	108	111
Rotavirus	29	29
Adenovirus	140	156
Herpes simplex virus	1 686	1 732
Varicella-Zoster virus	14	16
Cytomegalovirus	93	105
	2 949	3 151

TABLE 8
VIRUS ISOLATIONS FROM CLINICAL CASES

Diagnosis	Virus	Number of Cases
Aseptic meningitis, encephalitis	Mumps virus	15
	Coxsackievirus A9	2
	Coxsackievirus A untyped	5
	Coxsackievirus B2	1
	Coxsackievirus B3	6
	Coxsackievirus B5	2
	Echovirus 11	108
	Echovirus 14	8
	Echovirus 22	7
	Echovirus 25	5
	Other Echoviruses	2
	Enterovirus 71	10
	Enterovirus untyped	14
	Poliovirus (? Sabin strains)	4
	Adenovirus untyped	1
	Herpes simplex virus type 1	1
	Cytomegalovirus	1
Respiratory infections	Influenza A/Shanghai/31/80 (H3N2)	51
	Influenza A/England/33/80 (H1N1)	1
	Influenza B/Singapore/222/79	31
	Parainfluenza virus 1	14
	Parainfluenza virus 2	22
	Parainfluenza virus 3	38
	Respiratory syncytial virus	337
	Rhinovirus	108
	Coxsackievirus A9	1
	Coxsackievirus B2	1
	Coxsackievirus B3	4
	Coxsackievirus B5	2
	Echovirus 22	12
	Other Echoviruses	4
	Enterovirus 71	3
	Enterovirus untyped	7
	Poliovirus (Sabin strains)	17
	Adenovirus untyped	89
	Herpes simplex virus	39
	Cytomegalovirus	71
Erythematous rash	Coxsackievirus A9	1
Vesicular rash	Coxsackievirus A16	14
	Enterovirus 71	11
	Herpes simplex virus	372
	Varicella-Zoster virus	14
Genital ulceration	Herpes simplex virus	1 186
Gingivo-stomatitis	Coxsackievirus A16	3
	Enterovirus 71	2
	Herpes simplex virus	75
Conjunctivitis	Adenovirus untyped	12
	Herpes simplex virus	12
Vaginitis	Adenovirus untyped	3
	Cytomegalovirus	9
Neonatal infections	Coxsackievirus B3	1
	Coxsackievirus B5	2
	Echovirus 11	60
	Other Echoviruses	5
	Enterovirus 71	2
	Enterovirus untyped	6
	Adenovirus untyped	1
	Herpes simplex virus type 2	1
	Cytomegalovirus	7
S.I.D.S.	Echovirus 14	1
	Echovirus 22	1
	Poliovirus (Sabin strains)	1
	Enterovirus untyped	1
	Cytomegalovirus	1
Gastro-intestinal disorder	Coxsackievirus B2	1
	Echovirus 14	13
	Echovirus 22	3
	Other Echoviruses	2
	Enterovirus 71	2
	Enterovirus untyped	4
	Poliovirus (Sabin strains)	4
	Rotavirus	33
	Adenovirus untyped	29
Lymphadenopathy	Mumps virus	4
Renal disease	Adenovirus untyped	1
	Cytomegalovirus	4

TABLE 9

HEPATITIS B VIRUS SURFACE ANTIGEN SEROLOGY

Source	Number of Sera Tested	Number of Sera with Hepatitis B Surface Antigen
Patients (? hepatitis)	3 862	199
Renal Patients	2 444	1
Routine Antenatal	630	13
Routine Drug Abuse	477	45
Renal or Tissue Donors	148	. .
Paramedical Staff	464	3
	8 025	261

TABLE 10

HEPATITIS B ANTIBODIES IN ANTIGEN NEGATIVE SERA

Source	Number of Sera Tested	Positive for Core or Surface Antibody or Both
Patients	3 663	690
Routine Drug Abuse	432	324
Paramedical Staff	461	19
Renal or Tissue Donors	148	. .
	4 704	1 033

TABLE 11

SALMONELLAE ISOLATED FROM FOOD AND ENVIRONMENTAL SOURCES

Source	No. of samples	No. of isolations
Cooked peeled frozen prawns	120	8
Oysters in Shell	189	1
Bottled oysters	25	1
Frozen Turkey	3	1
Manufactured meat	121	5
Raw water	34	20

TABLE 12

BACTERIAL ENTERIC PATHOGENS ISOLATED FROM FAECAL SPECIMENS

Bacteria	No. of isolations	No of patients
Salmonella typhi	1	1
Other *Salmonella* spp.	56	50
Shigella spp.	22	22
Campylobacter jejuni/coli	37	36
Enteropathogenic *Escherichia coli*	6	6
Vibrio parahaemolyticus (Kanagawa positive)	1	1

TABLE 13

SENSITIVITY OF *Neisseria gonorrhoeae* To PENICILLIN

Minimal Inhibitory Penicillin Concentration (μg/ml)	Strains Inhibited					
	1980–81		1981–82		1982–83	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
0.004–0.015	355	48	238	38·5	413	45.8
0.03	24	3	25	4	47	5.2
0.06	93	12.5	86	14	198	21.9
0.12	177	24	169	27.5	157	17.5
0.25	61	8	47	7.5	28	3.2
0.5	16	2	19	3	11	1.2
1.0	7	1	0	0	2	0.2
2.0*	1	0.1	0	0	2	0.2
> 2*	8	1	34	5.5	43	4.8
Total	742	. .	618	. .	901	. .

* β—lactamase producing strains.

TABLE 14

PATHOGENIC AND OPPORTUNISTIC FUNGI ISOLATED OR DETECTED IN ROUTINE CLINICAL SPECIMENS

Fungi	Material	No. of isolations
Aspergillus species	Ear swabs	16
Candida albicans	Cervical, vaginal and urethral swabs	862
	Skin	45
	Throat swabs and sputum	111
	Urine	18
	Pus	7
	Faeces	5
Other *Candida* species	Miscellaneous	32
Torulopsis species	Miscellaneous	13
Trichosporon beigelli	Skin	2
Epidermophyton floccosum	Skin	21
Malassezia furfur	Skin	15
Microsporum canis	Skin	22
Microsporum gypseum	Skin	10
Trichophyton mentagrophytes	Skin	12
Trichophyton rubrum	Skin	57
Trichophyton tonsurans	Skin	2
Cladosporium carrionii	Tissue scraping	1

TABLE 15

PARASITES DETECTED IN ROUTINE CLINICAL SPECIMENS

Parasite	Material	Number
Entamoeba histolytica cysts	Faeces	21
Entamoeba coli cysts	Faeces	97
Entamoeba hartmanni cysts	Faeces	4
Giardia lamblia cysts	Faeces	163
Giardia lamblia trophozoites	Faeces	2
Endolimax nana cysts	Faeces	19
Chilomastix mesnili cysts	Faeces	1
Retortamonas intestinalis trophozoites and cysts	Faeces	1
Hookworm ova	Faeces	12
Strongyloides stercoralis	Faeces	4
Ascaris lumbricoides worm	Faeces	1
Enterobius vermicularis ova	Faeces	4
Trichuris trichiura ova	Faeces	45
Hymenolepis nana ova	Faeces	16
Phthirus pubis	Insect	1
Pediculus humanus (variety capitus) ova	Hair	1

TABLE 16
ATYPICAL MYCOBACTERIA
(235 persons)

Species or Species Complex	No. of Patients
M. ulcerans	1
M. haemophilum	1
M. marinum	1
M. kansasii	4
M. asiaticum	1
M. gordonae	2
M. flavescens	5
M. avium-M. intracellulare-M. scrofulaceum MAIS complex	175
M. terrae-M. nonchromogenicum	5
M. fortuitum	21
M. chelonei	15
Unclassified rapid growers	3
Nocardia species	3
Total	237*

* 2 persons had 2 different species—
1 MAIS—*M. fortuitum*
1 MAIS—*M. chelonei*

TABLE 17
SERSOVARS IDENTIFIED AMONG ISOLATES OF THE MAIS COMPLEX

Serovar[1]	1981–82 (103 persons)	1982–83[2] (128 persons)
1	7	11
2	1	..
5	..	1
6	1	3
7	15	9
8	3	1
9	4	8
11	2	1
12	2	3
13	..	1
14	12	14
15	1	..
16	12	16
17	3	4
18	4	4
19	2	4
22	2	2
23	..	1
25	3	1
28	1	..
Wolfenden	4	2
Russell	2	..
Rayner	1	3
Cleary	1	..
Hourston	1	..
Douglas	..	2
Wendt	..	1
Hammelswang	..	1
41	2	2
42	3	12
43	2	3
Unclassified	10	22
Autoagglutinable	9	17

[1] Serovars which are not listed were not encountered.

[2] Fifteen persons were found to be excreting 2 different types. Three persons were found to be excreting 3 different types.

TABLE 18
CYTOGENETIC ABNORMALITIES DETECTED

Abnormalities	Blood	Amniotic Fluid
Down's Syndrome	21	2
Klinefelter's Syndrome (and variants)	3	1
Turner's Syndrome (and variants)	2	..
Chromosome Translocation	15	2
Chromosome Deletion	1	..
Trisomy 13	1	..
XYY Syndrome	1	1
Xq27 Fragile Site	1	..
Miscellaneous	2	1
	47	7

1. SEROLOGY

Tests	Totals
SERUM AGGLUTINATION TESTS	
P.U.O. Tests (Routine)—	
Salmonella typhi (O)	279
Salmonella typhi (H)	22 588
Salmonella enteritidis bioser *paratyphi* A (H)	165
Salmonella enteritidis bioser *paratyphi* B (H)	164
Proteus OXK	5 059
Proteus OX19	22 695
Proteus OX2	20
Brucella abortus	23 335
Brucella A.H.G.	3
Listeria monocytogenes 1 (O)	3
Listeria monocytogenes 1 (H)	3
Listeria monocytogenes 4 (O)	3
Listeria monocytogenes 4 (H)	3
Cryptococcus neoformans—Antigen test	330
Cryptococcus neoformans—Antibody test	321
Leptospira serovars—	
copenhageni	25 586
javanica	25 586
celledoni	25 586
canicola	25 586
ballum	25 586
zanoni	25 586
robinsoni	25 586
cynopteri	25 586
bulgarica	25 586
djasiman	25 586
australis	25 586
pomona	25 586
grippotyphosa	25 586
kremastos	25 586
szwajizak	25 586
hardjo	25 586
medanensis	25 586
bataviae	25 586
tarassovi	25 586
panama	25 586
shermani	25 586
Paul Bunnell Tests	20 513
Infectious Mononucleosis Tests	780
P.U.O. Tests (Quantitative)	915
Syphilis—	
ART (Serum)—	
Routine	15 916
Quantitative	1 420
VDRL (CSF)	134
COMPLEMENT FIXATION TESTS	
P.U.O. Tests—	
Q. Fever—*Coxiella burneti* (Phase 1)—	
Routine	87
Quantitative	37
Q Fever—*Coxiella burneti* (Phase 2)—	
Routine	24 015
Quantitative	1 451
Typhus Fever—*Rickettsia mooseri* (Soluble)—	
Routine	71
Typhus Fever—*Rickettsia australis*—	
Routine	72
Chlamydial infections—*Miyagawanella ovis*—	
Routine	22 886
Quantitative	1 244
Brucellosis—	
Routine	24 006
Quantitative	127
Primary Atypical Pneumonia—*Mycoplasma pneumoniae*—	
Routine	22 889
Quantitative	3 588
Leptospirosis—*Leptospira interrogans* serovar *patoc*—	
Routine	26 091
Quantitative	274
Viral Infections—	
Influenza A—	
Routine	14 626
Quantitative	5 337
Influenza B—	
Routine	14 626
Quantitative	2 964
Influenza C—	
Routine	13 731
Quantitative	126
Parainfluenza 1—	
Routine	14 768
Quantitative	1 254

1. SEROLOGY—*continued*

Tests	Totals
Parainfluenza 2—	
Routine	14 768
Quantitative	1 129
Parainfluenza 3—	
Routine	14 768
Quantitative	2 703
Adenovirus—	
Routine	14 767
Quantitative	2 271
Respiratory Syncytial Virus—	
Routine	14 768
Quantitative	1 179
Mumps Virus—	
Routine	14 772
Quantitative	3 061
Measles Virus—	
Routine	3 392
Quantitative	999
Cytomegalovirus—	
Routine	10 870
Quantitative	4 771
Herpes simplex virus—	
Routine	7 562
Quantitative	4 729
Varicella-Zoster virus—	
Routine	700
Quantitative	217
Lymphocytic choriomeningitis virus—	
Routine	366
Quantitative	3
Rotavirus—	
Routine	53
Quantitative	5
Enterovirus—	
Routine	119
Quantitative	72
Poliovirus 1	18
Poliovirus 2	18
Poliovirus 3	18
Rubella virus	33
Ross River virus	2
Toxoplasmosis—*Toxoplasma gondii*—	
Routine	10 922
Quantitative	392
Hydatidosis—	
Routine	72
Quantitative	4
HAEMAGGLUTINATION INHIBITION TESTS	
Rubella antibodies	21 389
Rubella specific IgM antibodies	4 392
Arbovirus antibodies—	
Ross River virus—	
Routine	11 801
Quantitative	3 783
Australian encephalitis virus—	
Routine	11 832
Quantitative	2 200
Sindbis virus—	
Routine	11 801
Quantitative	161
Alfuy virus—	
Routine	192
Quantitative	104
Kunjin virus—	
Routine	230
Quantitative	93
Dengue 1 virus—	
Routine	9 849
Quantitative	1 325
Dengue 2 virus—	
Routine	260
Quantitative	184
Dengue 3 virus—	
Routine	261
Quantitative	173
Dengue 4 virus—	
Routine	260
Quantitative	183
Ross River—specific antibodies	5 064
Australian encephalitis—specific IgM antibodies	1 440
Sindbis—specific IgM antibodies	24
Alfuy—specific antibodies	752
Kunjin—specific IgM antibodies	768
Edgehill—specific IgM antibodies	8
Stratford—specific IgM antibodies	8
Kokobera—specific IgM antibodies	40
Dengue 1—specific IgM antibodies	3 376
Dengue 2—specific IgM antibodies	3 264
Dengue 3—specific IgM antibodies	3 280
Dengue 4—specific IgM antibodies	2 984
Japanese B encephalitis—specific IgM antibodies	16
HAEMAGGLUTINATION TESTS	
Amoebiasis	56
Toxoplasmosis	182
Schistosomiasis	2
Hydatidosis	77
TPHA	4 621
FLUORESCENT ANTIBODY TESTS	
FTA—ABS Tests (Serum)	3 035
FTA—ABS specific IgM antibodies (Serum)	157
Toxoplasma Fluorescent Tests—	
Routine	5 605
Quantitative	1 337
Toxoplasma Fluorescent specific IgM antibodies	513
Legionnaires' Disease Fluorescent Tests	2 117
ENZYME LINKED IMMUNOSORBENT ASSAY	
Ross River specific ELISA IgM antibodies	2 862
Rubella specific ELISA IgM antibodies	463
OTHER TESTS	
Fractionation of sera by sucrose density gradient ultracentrifugation	1 533
Seminal analysis	88
LEPTOSPIRAL STRAINS TYPED (24)	
Agglutination tests performed in typing	1 472
Absorption tests performed in typing	76
Antisera prepared	23
Total 1982–83	1 101 464
Total 1981–82	1 118 988

2. BACTERIOLOGY

A. SPECIMENS OF HUMAN ORIGIN (NON-TUBERCULOUS)

Specimen	Examination			Totals
	Micro-scopy	Culture	Antibiotic Sensitivity	
Swabs—				
Throat and Nose	170	1 525	382	2 077
Urethral, Vaginal, Cervical, Bartholin's Glands	10 487	14 326	1 731	26 544
Ear	150	262	192	604
Eye	99	144	96	339
Pus	646	991	752	2 389
Other	91	157	47	295
Miscellaneous fluids	38	43	11	92
Cerebrospinal fluids	11	11	..	22
Smears for *M. leprae*	163	..	..	163
Sputum	587	625	218	1 430
Urine	9 040	9 302	1 561	19 903
Faeces and rectal swabs	1 941	2 441	203	4 585
Cultures for indentification	148	289	213	650
Miscellaneous	20	29	4	53
Blood	233	240	19	492
Total 1982–83	23 824	30 385	5 429	59 638
Total 1981–82	19 919	24 904	5 495	50 318

B. PHAGE TYPING

—	Totals
Cultures prepared	1 213
Coagulase tests	225
Cultures typed at R.T.D.	1 046
Cultures typed at 100 x R.T.D.	61
Total 1982–83	2 545
Total 1981–82	3 289

C. FOODS AND WATERS

Specimen	Examination		Totals
	Culture	Plate Count	
Water	26 011	11 548	37 559
Water for *Vibrio cholerae*	2 133	..	2 133
Aquatic plants and bivalves for *Vibrio cholerae*	965	..	965
Moore swabs for—			
Vibrio cholerae	174	..	174
Milk	4 433	1 841	6 274
Cream	836	413	1 249
Other milk products	3 481	721	4 202
Meats and fish	5 936	1 122	7 058
Miscellaneous	810	151	961
Total 1982–83	44 779	15 796	60 575
Total 1981–82	40 957	14 459	55 416

D. VARIOUS MATERIALS AND TESTS

Specimen	Examination	Totals
Disinfectants and antiseptics	Cultures tested	8
Bottles	Sterility	1
Fish for ciguatera toxin	Examination	..
Urine	Albumin	9 040
Urine	Reducing substances	9 040
Total 1982–83		18 089
Total 1981–82		16 991

3. MYCOLOGY

Specimen	Examination			Totals
	Microscopy	Culture	Antibiotic Sensitivity	
Scrapings (Skin and Nail)	954	1 018	54	2 026
Cervical and Vaginal	..	5 509	1 323	6 832
Sputum	28	89	48	165
Miscellaneous	10	226	78	314
Total 1982–83	992	6 842	1 503	9 337
Total 1981–82	1 007	5 420	1 284	7 711

4. PARASITOLOGY
(EXCLUDING MALARIA)

Specimen	Object of examination	Totals
Faeces	Amoebae (cysts and vegetative)	1 956
	Helminth ova	1 974
Pus	*Trichomonas vaginalis*	5 466
Helminth (worms)	Identification	1
Total 1982–83		9 397
Total 1981–82		6 895

5. MYCOBACTERIOLOGY

Specimen	Examination			Total
	Microscopy	Culture	Animal Inoculation	
Sputum	18 492	18 492	1	36 985
Urine	1 327	1 327	..	2 654
Others	3 252	3 252	4	6 508
Asbestos Bodies	10	..	..	10
Total 1982–83	23 081	23 071	5	46 157
Total 1981–82	21 634	21 627	8	43 269

5. MYCOBACTERIOLOGY—continued

Other Investigations	1981–82	1982–83
CULTURES SUBMITTED		
Mycobacterium tuberculosis for confirmation and sensitivity	78	53
Atypical mycobacteria for—		
identification and sensitivity	4	9
identification only	14	31
Total	96	93
Atypical mycobacteria identified	219 (213 persons)	237 (235 persons)
Atypical mycobacteria serotyped	166 (103 persons)	211 (128 persons)
SENSITIVITIES PERFORMED		
M. tuberculosis, M. bovis, M. africanum or BCG	173	157
Others	36	49
Disc sensitivity tests	20	29
Total	229	235

6. HAEMATOLOGY

Test	Total
Haematology profile with smears	13 644
Haematology profile without smears	1 228
Blood smears	103
Platelet count	239
Erythrocyte sedimentation rate	6 436
Eosinophil count	48
Reticulocyte count	108
Stipple cells	4
Haemoglobin studies	208
Glucose–6–phosphate dehydrogenase	208
Pyruvate kinase	208
Gluthathione reductase	208
Haemorrhagic studies	112
Prothrombin time	91
Red cell fragility	2
Human chorionic gonadothropin	1 350
Vitamin B_{12}	2 188
Folic Acid	2 632
Rheumatoid arthritis screen	868
Rheumatoid arthritis test titre	215
Anti nuclear factor	1 188
Anti smooth muscle antibodies	1 188
Anti mitochondrial antibodies	1 188
Anti parietal cell antibodies	229
Salivary antibodies	2
Bone marrow	50
Neutrophil alkaline phosphatase	4
Periodic acid schiffs	..
Peroxidase	..
Iron stain	50
L.E. cells	12
Malarial parasites	1 757
Group and Rh	1 276
Rh antibody screen	1 142
Rhesus antibody titre	25
Immune anti-A/anti-B antibodies	..
Direct Coombs test	134
Indirect Coombs test	..
Infectious mononucleosis test	1 755
Cold agglutinins	46
Filaria	..
Schilling test	26
Cryoglobulins	6
DNA	444
C3	600
C4	600
Anti-ds DNA	208
Total 1982–83	42 030
Total 1981–82	41 261

7. HISTOLOGY

Tissue Specimens Received	1982–83	1981–82
Surgical pathology cases	8 437	7 714
Post mortem cases	124	136

8. BIOCHEMISTRY

Specimen	Examined for	Totals
Blood and/or Serum	Acetyl cholinesterase	358
	Acid phosphatase (Total)	89
	Acid phosphatase (Prostatic)	65
	Alanine aminotransferase	17
	Albumin	202
	Alkaline phosphatase	12
	Alpha 1 antitrypsin	39
	Amylase	117
	Ascorbate	1
	Asparate aminotransferase	46
	Bilirubin (Total)	46
	Bilirubin (Direct)	12
	Carotene	48
	Ceruloplasmin	17
	Chloride	23
	Cholinesterase	406
	Cholesterol	6 137
	" C " Reactive Protein	57
	Creatinine kinase	136
	Creatinine	16
	Ferritin	1 528
	Gamma glutamyl transferase	258
	Glucose	1 278
	Glycosylated haemoglobin	538
	HDL Cholesterol	6 137
	Immunofixation	45
	Immunoglobulins	359
	Iron	1 528
	Lactate dehydrogenase	33
	Lipoprotein electrophoresis	205
	Lithium	210
	Magnesium	16
	Potassium	21
	Protein	202
	Protein electrophoresis	607
	Sodium	22
	Thyroxine	7 152
	T3 uptake	7 131
	Thyroid binding globulin	121
	Thyroid stimulating hormone	1 071
	Transferrin	1 528
	Triglycerides	6 137
	Urate	17
	Urea	34
	Miscellaneous	153
		44 175
Urine	Calcium	34
	Coproporphyrin and Uroporphyrin	76
	Creatinine	17
	Delta Aminolevulate	253
	Phosphorus inorganic	21
	Porphyrin screen	25
	Protein	37
	Protein electrophoresis	56
	Urate	24
	Miscellaneous	52
		595
Faeces	Fat content	154
	Occult blood	67
	Miscellaneous	24
		245
Spinal Fluid	Chloride	6
	Colloidal gold curve	12
	Glucose	6
	Protein	11
	Immunoglobulin/Albumin ratio	19
		54
Other Fluids	Urea	264
		264
Functional Tests	Creatinine clearance	14
	Glucose tolerance	158
	Xylose absorption	4
		176
Miscellaneous	Calculus	125
		125
Total 1982–83		45 634
Total 1981–82		45 502

8. BIOCHEMISTRY—continued

Specimens submitted to Princess Alexandra Hospital for SMAC Profile— 1982–83	11 440
1981–82	10 499

9. CYTOGENETICS

Specimen	1982–83	1981–82
Blood	319	294
Bone Marrow	11	13
Amniotic Fluid	331	417
Xq27 Fragile Site	15	..
	676	724

10. MEDIA

—	Totals	
	1982–83	1981–82
Slopes	161 952	193 393
Plates	315 370	351 137
Tubes and Bottles	286 456	317 202
Total	763 778	861 732
Stains	693 litres	1 208.43 litres
Chemical Solutions	13 114.6 litres	17 176.4 litres

11. MEDICO-LEGAL

Exhibits	Total
Blood	566
Saliva	137
Vaginal smears	367
Vaginal swabs	373
Rectal Swabs	47
Rectal smears	49
Blood swabs and scrapings	496
Miscellaneous smears and swabs	115
Hair	642
Clothing and bedding	1 949
Weapons	125
Miscellaneous	734
Total 1982–83	5 600
Total 1981–82	4 374

Examination on Exhibits	Totals
Blood groupings (ABO, Rh, Hp, etc.)	6 640
Blood groupings miscellaneous (Lewis, PGM, etc.)	344
Screening tests for blood	2 595
Blood identification	1 962
Species identification	2 802
Acid phosphatase screening	1 823
Rocket-Lainel test	330
Smears—spermatozoa	1 097
Hair comparisons	2 379
Miscellaneous	519
Secretor Test	697
Total 1982–83	21 188
Total 1981–82	12 354

12. INSTITUTE OF FORENSIC PATHOLOGY

——	1982–83	1981–82
Post mortem examination	1 242	1 160
Histology—		
Paraffin sections	10 275	8 274
Histochemistry	326	283
Frozen sections (routine)	65	109
Frozen sections for fluorescent antibody tests	1 242	1 196
Bacteriology—		
Blood cultures	35	43
Other cultures	169	181
Microscopy—		
Diatoms	48	56
Spermatozoa	2	3
Radiography	279	265
Photography—		
Slides of gross specimens	360	404
Photomicrographs	120	60
Line slides	187	122
Monochrome	105	81

13. ANIMAL BREEDING STATION

——	1982–83	1981–82
Animals Provided—		
Guinea Pigs	131	90
Rabbits	74	58
Mice—		
Litters	2 234	1 359
Weaned	546	230
Animal Bleeding—		
Rabbit (40 ml)	127	168
Guinea Pig (10 ml)	246	263
Sheep (400 ml)	70	160
Geese (20 ml)	94	104
Stock on Hand—		
Guinea Pigs	142	170
Rabbits	133	146
Mice	930	900
Sheep	10	9
Geese	8	5

GOVERNMENT CHEMICAL LABORATORY

Director: T. J. BECKMANN, M.Sc., F.R.A.C.I.

Deputy Director (Research and Specialized Services). J. C. YULE, B.Sc., B.Econ., Dip.Ind.Chem., A.R.A.C.I.

Deputy Director (General and Advisory): K. H. DEASY, B.Sc.(Hons.), A.R.A.C.I.

Assistant Directors:
J. V. FOREMAN, B.Sc., A.R.A.C.I.
D. S. LECKY, B.Sc.

Supervising Chemists:
G. D. GRAIEG, B.Sc.(Hons)
P. M. GEOGHEGAN, B.Sc.(Hons)
A. J. WEBB, B.Sc., B.Econ., A.R.A.C.I.
R. P. BILTOFT, B.Sc., A.R.A.C.I.
G. S. CRAVEN, B.App.Sc., B.Bus.(Man.), M.Sc., A.R.A.C.I.
G. R. RYNJA, B.App.Sc., B.Econ., A.R.A.C.I.

GENERAL REVIEW OF THE YEAR'S OPERATIONS

Many government departments and statutory authorities use the services of the Government Chemical Laboratory. The number of samples handled and their sources, for this year and for the previous two years, are listed in the following table. Since the amount of work carried out on samples varies greatly, this table indicates in general terms only, the workload of the laboratory. For further details the reader is referred to the details provided in the body of the report.

The Committee on costs and charges has finalized its report on charging for services provided by the laboratory. Departments and Authorities not funded from Consolidated Revenue will be charged at a rate which recovers costs. Other departments (i.e. those funded from Consolidated Revenue) will be informed of the notional costs of work done for them. A computer program is being developed to handle the clerical aspects of this work.

COMMONWEALTH GAMES

The Director was a foundation member of the subcommittee of the Commonwealth Games Foundation responsible for the organization of the drug testing of competitors. Two other senior staff members joined later when responsibility for specimen collection at three Games venues was given to the Government Chemical Laboratory. In all, 23 officers voluntarily gave their services to this programme. It is to the credit of these officers that the delicate task of specimen collection was carried out without any untoward incidents.

ORGANIZATION AND STAFF

The staff of the laboratory was increased by six during the year to 115. Three additional chemists enabled the Forensic Section to expand the range of services provided for crime detection and to make some inroads into the increasing number of drug and related specimens sent to the laboratory. A Librarian was appointed; this appointment has enabled the library of the largest Government laboratory in the State to be properly organized.

In recent years there has been an increase in the range of advisory services required of the laboratory to Departments and Instrumentalities. Two chemists, with industrial experience at management level, have recently been appointed at a senior level to strengthen the advisory services.

Mr G. Graieg, Supervising Chemist of the Waters Section, made a 7-week study tour of water and waste water laboratories in Europe, Great Britain and the United States of America. This tour included a 2-week working visit to the Medmenham Laboratory of the Water Research Centre in England.

Two Supervising Chemists completed the 1982 Management Development Programme, and four officers are attending the 1983 Supervisor Development Programme of the Health Department's Management Service Branch. Twelve officers are attending Skill Development Workshops.

The Director, together with other State Departmental officers, gave evidence to the Ross Inquiry investigating Commonwealth Laboratories.

During the year, 24 officers have been studying approved courses under the Study Assistance Scheme.

During this year, laboratory representatives attended the following meetings with international and/or interstate participants:—

- Tenth Federal Convention of the Australian Water and Waste Water Association, Sydney, 11th–15th April, 1983;
- Fifth Australasian Schools and Conference on X-ray Analysis and Surface Analysis, Melbourne, 16th–20th May, 1983;
- First Annual Conference of the Australian Institute of Occupational Hygienists, Melbourne, 29th–30th November, 1982;
- The Fifteenth Annual Conference of Forensic Toxicologists, Melbourne, 18th–20th October, 1982;
- The Ninth Annual Conference on Illicit Drugs, Melbourne, 21st–22nd October, 1982;
- Australian Institute of Foods Science and Technology, Melbourne, 29th May to 2nd June, 1983;
- Eleventh Australian Road Research Board (ARRB) Conference, Melbourne, 25th August, 1982;
- Second Meeting of Heads of Australian Government Chemical Laboratories, Brisbane, 14th–15th July, 1982;

Laboratory senior officers are co-opted to a further variety of committees which meet more or less regularly as required. Those attended during the year included—

- National Health and Medical Research Council (NHMRC)—Occupational Hygiene (Reference) Sub-Committee;
- Australian Environment Council—National Advisory Committee on Chemicals; Director is State Representative;
- Association of Australian Port and Marine Authorities (Dangerous Goods Sub-Committee);
- Council of the National Association of Testing Authorities (N.A.T.A.) Australia; Director is Queensland Government Member;
- Committee DS/2 (Dairy Products) of the Standards Association of Australia, Melbourne;
- Inter-Departmental Committee on the Chemical Contamination of Food (I.D.C.C.C.F.) (Queensland Government Departments);
- The Queensland State Paint Group of the Government Paint Committee (G.P.C.) within the Commonwealth Department of Transport and Construction.

Officers are also members of the Standards Association of Australia Committees, CS/13 Plastics for Food Contact, and CH/1 Laboratory Glassware and related apparatus. One officer attended a meeting of Committee CS/13 during October, 1982.

Training Courses, Seminars, visits attended included—

- Forensic Science and the Chemist; organized by the R.A.C.I., Qld Branch; Q.I.T., Brisbane, 27th May, 1983;
- Workshop on Library Cataloguing and Automation, Q.I.T., Brisbane, 24th March, 1983;
- Librarian—Chemical Information Seminar; and Med./Biosis Seminar;
- Computer Training Course; The Image 1000 Users Course—Hewlett Packard, Melbourne, 11th–15th April, 1983;
- Liquid Chromatography (HPLC) Course organized by Waters Associates;
- "Musselwatch" Meeting, Canberra, 22nd November, 1982.

Laboratory officers are invited to assist tertiary and related educators in student training in applied science areas. They also lecture to associations. Some of the lectures given include—

- Developments in the notification scheme for industrial chemicals to the Australian Chemical Specialities Manufacturers Association (A.C.S.M.A.);
- Queensland University; Medical School—"Lead Processing Industry";
- Royal Australian Air Force—"Occupational Health Hazards for Electroplaters";
- TAFE College of Catering Hospitality Services—Meat Traders Section—"Small goods";
- Police Department—two lectures on the "Breathalyser".

SOURCE AND NUMBER OF SAMPLES EXAMINED FOR YEARS 1980–81, 1981–82, 1982–83

Source (Departmental or Other)	1980–81	1981–82	1982–83
STATE DEPARTMENTS—			
Health Department—			
Division of Environmental and Occupational Health—			
Section of Food Supervision	8 156	7 925	8 323
Section of Drugs and Poisons	821	960	1 122
Section of Environmental Sanitation	3 541	4 469	5 525
Division of Occupational Health	1 403	1 645	1 783
Division of Child Health	1	Nil	1
Division of Psychiatric Services (Alcohol and Drug Dependence Service)	1 958	1 536	2 585
Division of Dental Services (School of Dental Therapists Training Centre, Yeronga)	1	Nil	Nil
Division of Aboriginal Health	..	1	Nil
Total for Health Department	15 881	16 536	19 339
Mines Department—			
Geological Survey Division	1 421	730	682
Mines Inspectorate and Gas Engineer	1 416	2 123	2 507
Cloncurry Assay Office	1 505	1 368	910
Qld Coal Board	508	590	504
Total for Mines Department and Qld Coal Board	4 850	4 811	4 603
Police Department	4 242	5 319	5 267
Justice Department (Coroner)	1 577	1 566	1 415
Queensland Water Resources Commission	3 520	3 676	3 545
Water Quality Council	8 417	9 854	11 045
State Stores Board	776	722	556
Queensland Housing Commission	922	1 178	704
Department of Primary Industries	82	79	99
Department of Public Works	709	1 531	1 979
Railway Department	4	10	Nil
Main Roads Department	78	52	71
Others	96	57	172
Total for State Departments	41 154	45 391	48 795
COMMONWEALTH DEPARTMENTS			
Department of Primary Industry	2 147	4 230	2 220
Department of Commerce and Industry	1 099	1 120	942
C.S.I.R.O.	..	..	212
Others	6	5	13
Total for Commonwealth Departments	3 252	5 355	3 387
Port and Harbour Authorities	57	29	41
Medical Practitioners, Hospital and Allied Clinical Services	3 445	3 059	1 121
Local Authorities	217	213	135
Other Countries (Papua New Guinea)	*	64	49
Public and Miscellaneous	624	417	401
TOTAL	48 749	54 528	53 929

* Specific Details NOT available.

ACCOMMODATION—HOUSING

Most of the relocation of laboratories, referred to in last year's report, into additional temporary areas in the Old Primary Industries Building has occurred.

A site for a new laboratory has been selected and negotiations for acquiring the site are proceeding.

MATERIAL RESOURCES

New equipment is required each year to replace worn out equipment and old technology. It is necessary to purchase automated equipment to increase staff effectiveness, since such instrumentation can be used for overnight processing of routine samples. However, there is a limit to what can be achieved by this approach, and the time is approaching when the only means of improving service to the State will be by increases in technical staff.

The major and more costly items acquired during the year were:—

(1) *Foods Section*—High Performance Liquid Chromatograph (HPLC) and microprocessor-based sample handler for this equipment;

(2) *Forensic and Clinical Services*—Refrigerated Centrifuge; Automatic Gas Chromatograph, and Automatic Injector; Automatic Sampler and Diluter; Zoom Stereo Microscope and 35 mm Camera with accessories;

(3) *Mining and Secondary Industries Section*—Mass Flow Calibrator for Sampling Devices; Paramagnetic Oxygen Analyser; High Performance Tube Furnace; Hydrogen Sulphide Meter;

(4) *Pesticides Group*—Capillary Gas Chromatograph;

(5) *Waters Section*—Ion Chromatograph; Blender Mixer; Digital Analytical Balance;

(6) *Surface Coatings Group*—Krebs-Stormer Viscometer and Top-pan Balance;

(7) *Laboratory Computers*—125 Megabyte disc drive, laboratory automation system; four additional terminals; soft-ware update for the gas chromatograph/mass spectrometer;

(8) *Workshop*—Milling Machine;

(9) Reticulation of distilled water from a central preparation point and a centralized glass cleaning facility using industrial glass washing machines have been installed.

WHAT THE LABORATORY HAS DONE THIS YEAR

(1) Monitoring for Public Health of what the Community Eats, Drinks and Uses

(2) Assessment of Hazards, Problems and Indicators in the Occupational Field

(3) Forensic Services

(4) Clinical Services

(5) Natural Resources—Investigations

(6) Monitoring of the Aqueous Environment

(7) Contract Supervision Services

(8) Services to Commonwealth Department

(9) Research and Publications

The report is presented under the above nine headings. Each heading reflects sectional contributions to the topic.

(1) MONITORING FOR PUBLIC HEALTH OF WHAT THE COMMUNITY DRINKS, EATS AND USES

A. Drinking Water

B. Quality of Food and Beverages

C. Pesticide Residues in Food

D. Drugs and Pharmaceuticals

E. Household and Industrial Chemical Products

F. Toys and Other Children's Articles

G. General and Miscellaneous Matters concerning Safety in Public Health

A. DRINKING WATER

The routine chemical examination of water supplies to ascertain their continuing suitability for drinking and other uses is not glamorous work, but it is necessary for quality assurance. It is through such work that information that is part of the overall knowledge required for the monitoring of public health is obtained. In this connection 1 646 samples of water were analysed in the course of the year.

The Health Department maintains surveillance of fluoridated water supplies in Queensland. A total of 538 samples of these waters were examined for fluoride; none contained fluoride significantly in excess of the appropriate standard.

A total of 1 771 samples was examined in connection with the cholera survey of streams by the Department of Health.

This laboratory, using analysis reports issued by the Department of Primary Industries, regularly provides statements on behalf of that Department as to the suitability of water for domestic use. One thousand and forty-five such statements were issued during the year, 352 more than last year.

The table below shows the source and numbers of water samples analysed. The numbers reflect an increase of 17 per cent over those of last year.

Source of Samples	Number and Type of Analysis			
	Standard*	Fluoride	Trace Metals†	Nutrients‡
Department of Health—				
(a) Cholera Survey	571	..	610	590
(b) Other	1 426	538	205	27
Department of Primary Industries	99	..	..	..
Department of Public Works	5	..	..	..
Miscellaneous	116	..	..	..

* Standard Water Analysis involves the following 17 determinations, viz.: conductivity, pH, colour, turbidity, silica, alkalinity, sodium, potassium, calcium, magnesium, chloride, fluoride, nitrate, sulphate, and dissolved iron, manganese and zinc.

† The samples submitted for metal analysis usually had the following metals determined:—chromium, manganese, iron, nickel, copper, zinc, cadmium, lead.

‡ Nutrient analysis involves the determination of organic nitrogen, ammonia nitrogen, nitrate and nitrite nitrogen, and total phosphorus.

During the year, a number of potable water samples were examined for the presence of pesticides. These were mainly from rainwater tanks of householders who suspected spray drift contamination of their drinking water supplies. The number of samples received was 49, and 10 of these contained pesticides at detectable levels but none of the samples examined contained pesticides in excess of the Maximum Residue Limit (MRL). The results are presented in the accompanying table.

PESTICIDES IN DRINKING WATER

Pesticide Detected	No. of Samples with Pesticides	MRL (mg/l)	No. Samples 0 to 10% MRL	No. Samples 10% to 50% MRL
Dieldrin	6	0·001	2	4
Total DDT	3	0·003	3	..
Endosulfan	1	0·04	1	..
2,4-D	2	0·1	2	..
2,4,5-T	2	0·02	1	1

B. QUALITY OF FOOD AND BEVERAGES

One of the functions of the laboratory is to provide an analytical and advisory service on public health matters. This extends to food quality, food nutrition, food acceptability and fitness for human consumption, as well as to an assessment of food and beverages in relation to relevant legislative requirements. Analyses commonly have as their objective one or more of the following:—

(a) Assessment of a food with respect to compositional and labelling requirements;

(b) Provision of certificates of analysis of official samples which may be used to enable prosecutions to be undertaken;

(c) Information as to the presence or absence of contaminants in a food and on fitness of the food for human consumption;

(d) The obtaining of specific data on certain foods.

By far the greatest number of samples of food received for analysis originated from the Division of Environmental and Occupational Health. Since the beginning of the financial year examinations of foodstuffs have been carried out under the *Food Act* 1981 and the associated Food Standards Regulations 1982. This legislation superseded the relevant sections of the Health Act, and the Food and Drug Regulations made under the Health Act. The new Regulations have to some extent altered compositional requirements for certain types of foodstuffs, and have made the requirements for others more specific than in the previous legislation. Another effect is that some prescribed methods of analysis have been deleted, giving the analyst some flexibility in choosing the method of analysis most appropriate to a particular sample. The Food Standards Regulations follow closely the model Food Standards Regulations of the NHMRC.

From the point of view of analytical methodology, the year was notable for the great increase in the use of high performance liquid chromatography (HPLC), both in the number of determinations carried out and in the variety of analyses performed. Although first applied in the area of analysis of foodstuffs in this laboratory only a few years ago, it has probably now become the single most important instrumental technique for food analysis. It has improved the accuracy of several determinations and permitted others to be carried out satisfactorily for the first time. Applications of the technique will be discussed under the individual headings for various categories of foodstuffs.

The application of computer programs for performing calculations, assessing results and printing reports has also expanded considerably in the area of food analysis; well over half the samples submitted are now dealt with in some way by computer. Programs have now been written for meat and cereal products, and the existing programs for beverages and dairy products have been expanded to take in additional varieties of goods.

Fifty samples of bread and related products were received from the Weights and Measures Branch of the Consumer Affairs Bureau, and samples also were received from the Water Quality Council, Qld. (58), a shire council (1), the Police Department (2), and the Harbours and Marine Department (2).

The tables following detail the work carried out during the year:—

FOOD SAMPLES EXAMINED FOR PUBLIC HEALTH PURPOSES

Description	Number Examined (1981–82)	Number Examined (1982–83)
Dairy Products, Fats and Oils—		
Milk	1 137	963
Milk Drinks	916	600
Cream	316	225
Yoghurt, Butter and Cheese	136	212
Ice Cream	40	29
Margarine and Vegetable Oils	15	Nil
Other Fat-based Products	69	85
Bread, Cereals and Carbohydrates—		
Bread	611	669
Other Cereal Products	54	59
Saccharine Products (sugar, confectionery, honey, frozen confections)	46	143
Other Carbohydrate Foods	53	24
Carcass Meat, Fish and Poultry—		
Minced Meat and Meat Cuts	406	565
Sausages and Sausage Meat	331	589
Meat Pies	161	214
Other Meat Products	179	338
Fish Flesh, Oysters, Crustaceans (trace metals)	439	590
Fish and Marine Products	260	291
Fruits, Vegetables, Nuts and their Products—		
Fruit and Vegetable Products	164	70
Nuts, Pulses and Seeds	261	97
Beverages and Food Adjuncts—		
Soft Drinks, Fruit Juices and Cordials	802	1 144
Beer, Wines and Spirits	60	221
Tea, Coffee and Cocoa	17	32
Spices, Condiments and Food Additives	106	16
Other Foods—		
Suspected or Contaminated Foods ..	419	453
Miscellaneous	46	134
Total	7 044	7 763

OFFICIAL SAMPLES EXAMINED IN ACCORDANCE WITH PROVISIONS OF THE FOOD ACT

Nature of Samples	1981–82			1982–83		
	No. Examined	Passed the Standard	Proportion Passed (%)	No. Examined	Passed the Standard	Proportion Passed (%)
Milk	831	818	98·4	600	576	96
Cream	13	13	100	66	66	100
Cheese	..	..	..	7	2	29
Bread	73	43	58·9	247	204	83
Other Cereal Products	2	1	50	3	3	100
Minced Meat	356	288	80·9	557	510	92
Sausages and Sausage Meat	318	179	56·3	575	489	85
Meat Pies	41	20	48·7	148	85	57
Other Meat Products	26	26	100	53	44	83
Fish	123	110	89·4	250	228	91
Fruits and Vegetables	..	..	..	6	3	50
Beer, Wine and Spirits	7	4	57	34	22	65
Other Beverages	..	..	..	33	20	61
Suspected or Contaminated Food	40	..	..	34	..	..

Dairy Products, Fats and Oils

The major proportion (96 per cent) of samples of milk received for analysis complied with the prescribed standard. Of those that failed most were deficient in non-fat milk solids with a few having unsatisfactory freezing points. In the Food Standards Regulations 1982, the prescribed maximum freezing point has been raised from —0.540 degrees Celsius to —0.517 degrees. This was to take into account—

(a) the revision of the Australian Standard Method for the determination of the freezing point of milk; and

(b) the fluctuations which normally occur in genuine herd milk due to seasonal and other factors.

The previous standard for "Whipping Cream" (420 g/kg of milk fat) was not entirely satisfactory and has been replaced in the new Food Standards Regulations 1982 by a standard for "Rich Cream" (480 g/kg of milk fat). Almost all of the creams tested contained at least the required or stated fat content as well as complying with the other requirements of the standard.

A greater variety of cheeses and cheese products than in previous years was analysed, reflecting the more cosmopolitan nature of the market. Most of these products had satisfactory fat and moisture levels. A survey was conducted into the presence in cheese of the prohibited additives, nitrates and nitrites. Of the 99 samples analysed, six were found to contain nitrite, and one nitrate. However, in no case did the level of nitrite or nitrate exceed 20 mg/kg; a level which indicates that there was no deliberate addition of nitrate or nitrite.

A number of brands of milk powder were examined for the requirements of the standard and also for the presence of scorched particles (an indication of the quality of processing) and trace iodine. All samples complied with the prescribed standard and were of reasonable quality. Only one sample was improperly labelled.

Several hundred fluid milk samples were examined for trace iodine content. Almost all contained less than the permitted maximum level of 500 ug/L, indicating that iodophor disinfectants are being used by the industry with much more care than they were until a few years ago. All iodine determinations are now carried out using X-ray fluorescence spectrometry on the freeze-dried solid product. This replaces the former ion selective electrode method which was more difficult to use and less accurate.

The proportion of egg solids in samples of custard powder was found by determining the amount of cholesterol present. The cholesterol was determined by gas chromatography of the trimethylsilyl derivative.

A product based on dried milk, whose labelling suggested the possible presence of anabolic steroids, was examined with the assistance of the laboratories of the Royal Brisbane Hospital. No anabolic steroids were detected.

Bread, Cereals and Carbohydrates

The year was notable for a considerable increase in the number of breads in the fibre-increased category received, reflecting a greater popularity for these products in the market place. A specific standard for such breads is now included in the new Regulations.

Official samples of bread which failed their respective standards did so because of a deficiency in crude fibre or non-fat milk solids content. These deficiencies occurred with approximately equal frequency. Failure rates of unofficial samples were similar. One sample of bread contained synthetic colouring which is not permitted in bread varieties.

Increasing public concern about the adverse effects of high sodium levels in the diet has led an increasing number of manufacturers to market food products to which salt has not been deliberately added. One sample of "low sodium wholemeal bread" was submitted for analysis of its sodium content. It was found to contain much less sodium than other normal wholemeal breads, and complied with the standard for low sodium content foods.

Fifty samples of bread and bread-related products were examined for the Weights and Measures Branch of the Consumer Affairs Bureau. As in previous years, most required measuring dry solids content and often also the proportion of non-fat milk solids. However, this year several samples were also submitted for an opinion as to whether they were bread within the meaning of the Food Act. This resulted from a considerable increase in the marketing of products consisting of bread or similar material chopped, spread, topped or otherwise associated with other foods. In these cases, the special provisions of the Weights and Measures Act relating to bread do not apply, and the products are dealt with under the general provisions.

A survey of considerable magnitude into the quality of honey was made during the year. Detecting adulteration has become much easier in recent times with the development of a HPLC method for separating and measuring each of the various types of sugars present in a sample. The presence of foreign sugars, or a significant deviation in the ratio of the sugars naturally present, indicates adulteration. All of the samples submitted were normal in these respects and they also complied with the other provisions of the standard for honey, excepting a few that were slightly high in ash.

A member of the public alleged that a purchased bottle of maple syrup was not genuine. An examination of its sugar profile using the HPLC technique proved that it was genuine maple syrup.

A number of foods claiming to be specially formulated for diabetics and generally being sweetened with sorbitol and/or fructose were examined for the types of sugars and artificial sweeteners present. This was a further instance where HPLC was employed in the analysis of carbohydrates and related substances. In nearly all cases the label claims of composition agreed closely with analytical results.

Carcass Meat, Fish and Poultry

The large number of official meat product samples submitted for analysis during the year caused a certain amount of strain on the resources of the laboratory. However, the number passing the standard was somewhat better than in previous years, possibly because of the increased penalties prescribed under the Food Act.

Most of the minced meat samples which failed to meet standards did so because of the presence of sulphur dioxide preservative. By far the most common cause of failure for sausages or sausage meats was a deficiency in meat content, although a considerable number contained excess sulphur dioxide and some had excess fat. Of those sausages claimed to be made from a particular species of meat many, particularly pork sausages, were found to be adulterated with another species. Meat and fish samples ascribed to a particular species are now tested routinely by electrophoretic techniques to ensure that they are correctly described.

A HPLC method, similar to that employed for measuring vitamin C in fruit juices, is now used routinely to screen minced meat samples for erythorbic acid and ascorbic acid. These compounds act as antioxidants in meat and are sometimes used as non-permitted additives in the same way as sulphur dioxide. Although they oxidize to other compounds over a period of time, they can be reconstituted and the amount originally added can then be measured. Of all the official samples examined, none contained ascorbic acid and only two were found to contain erythrobic acid, indicating that this is not a serious problem in Queensland at the present time. A survey of 30 samples of meat products of various types showed erythorbic acid to be present in two samples and ascorbic acid in one. Food Act certificates were issued in respect of the two official minced meat samples to enable prosecutions to proceed.

A relatively large survey of about 150 samples of manufactured meat, covering many local manufacturers, was conducted during the year. Only about 10 per cent of these samples were found to be unsatisfactory in some respect. Those unsatisfactory had excessive nitrate or nitrite, a deficiency in meat content, and excessive sulphur dioxide, fat, or added phosphate.

Two hundred and fifty official samples of fish were submitted during the year for species determination. Nine per cent of these were found to be misdescribed, most purporting to be the more expensive varieties such as barramundi or coral trout. During the year, the laboratory's stock of authenticated fish specimens has been built up, enabling a wider range of species to be positively identified. Our capabilities in this area have also been of assistance to other government departments, such as the Harbours and Marine Department and the Police Department (Fraud Squad).

Several samples of meat marking inks were examined. One of these was the non-permitted dye methyl violet and one other contained a mixture of several non-permitted dyes. A sample of meat which was dyed a dark blue on one side also contained methyl violet.

A large number of fish and other marine products were analysed on behalf of the Division of Environmental and Occupational Health and the Water Quality Council, Queensland, for trace levels of lead, cadmium, copper, zinc and mercury. The programme of sampling flesh from larger sharks continued, with over 50 per cent found to contain mercury in excess of the prescribed limit of 0.5 milligrams per kilogram. Samples of other types of fish generally had satisfactory levels of metals.

A survey was also carried out into the concentrations of toxic metals in baby foods such as canned meat, canned vegetables and fruit juices. All the samples examined proved satisfactory.

Fruits, Vegetables, Nuts and their Products

Samples of nuts and nut products (97) were examined for the presence of aflatoxins which are natural contaminants produced by a mould whose growth is favoured by certain climatic conditions. This year, no samples were found to be significantly contaminated by aflatoxins.

Beverages and Food Adjuncts

One thousand, one hundred and forty-four (1 144) soft drink and fruit juice products were examined.

The proportion of fruit juices and fruit juice drinks failing the standard in some respect was higher than was the case for fruit drinks and other types of soft drinks. Deficiency in vitamin C or fruit juice content was the most common cause of failure. There does not appear to have been much change in the failure rate compared with previous years for beverages of this type, nor in the reasons for which they fail.

Some 221 samples of alcoholic beverages were examined for alcohol content and, where appropriate, also for the presence of preservative and other additives. Of the unofficial samples examined, alcohol content usually conformed with the standard and with any label claims that were made. The relatively small number of official alcoholic beverage samples analysed had a much higher failure rate because they were generally submitted only when a test in the field indicated an abnormality.

Some samples of beer described as being "Diet Ales" or similar products were checked for energy value. They were found to have lower carbohydrate levels than ordinary beers, and to have energy values corresponding well with label claims. Samples of reduced alcohol beer also had lower energy values, but this was due entirely to their lower alcohol contents. The following table shows the average values obtained:—

AVERAGE ENERGY YIELD FOR BEERS

Type of Beer	Alcohol Content (ml/L)	Carbohydrate Content (g/L)	Energy Yield (kJ/100ml)
Normal	48	30.3	159
Diet	46	12.3	124
Reduced Alcohol	32	29.7	122

A study was carried out into the oxidation of vitamin C in fruit juice when stored under certain conditions. This will permit allowance to be made for changes which could occur between the time when samples are originally taken and when they are analysed.

Twenty-four samples of instant coffee and one sample of instant tea were examined for the presence of dimethylpolysiloxane and maltodextrins. Dimethylpolysiloxane is an antifoam agent used as a processing aid in the manufacture of instant coffee and is permitted at low levels (10 mg/kg). None of the brands examined declared its presence in the labels. After much analytical effort, results indicated that many samples contained a little dimethylpolysiloxane. Six samples were found to contain more than the permitted maximum with the highest concentration found being 150 mg/kg. Maltodextrins are known to have been used at times as adulterants in instant coffee and are not easy to detect. This form of adulteration was not positively detected in any of the samples submitted.

A sample of tea purporting to be tannin-free was examined for verification of the claim. According to the normally accepted meaning of the word "tannin", the product was found to be no different in tannin content from other teas.

Contaminated or Suspected Foods

A wide variety of foods was examined for identification of foreign matter present. Insects and insect fragments were the most common contaminants, with rodent excreta, glass fragments, cigarette butts, and parts of machinery and packing materials also being found on several occasions. The two most notable samples submitted during the year were a packet of frozen beans which contained part of a mouse and a loaf of bread which contained broken glass, lead shot, silicone polymer and red dye, apparently the remains of a broken hydrometer.

A large number of samples alleged to be deteriorated or to have caused illness was also received. In most cases of consumer complaint concerning deteriorated canned products, abnormalities were apparent. However, almost all samples of food which were claimed to have caused illness, were found to be satisfactory to the extent that could be ascertained by chemical analysis. If the cause of the problem is suspected to be microbiological, then the sample has to be investigated by the Laboratory of Microbiology and Pathology.

C. Pesticide Residues in Food

The table accompanying this segment gives results for the continuing survey of foodstuffs from the marketplace. Foods chosen for analysis this year represent a wide cross-section of types, but cost and manpower considerations prevent the analysis of all food types available. The Commonwealth Department of Primary Industries organizes analysis of export produce for pesticide residues, such analyses complement the State surveys.

The type and quantity of pesticide residues permitted on foods are prescribed in Regulation A14 of The Food Standards Regulations 1982, and are expressed as Maximum Residue Levels (MRLs). These Regulations are regularly updated based on recommendations made by the National Health and Medical Research Council (NHMRC), which in turn bases its recommendations on those made by the World Health Organisation (W.H.O.).

Residues of several of the persistent organochlorine pesticides were again found in foodstuffs this year. These levels are generally extremely low, representing only miniscule traces in the particular foodstuffs. These pesticides are rarely used in agriculture except for certain limited specific uses, but are still used for control of household pests and ants. Examples of these pesticides are dieldrin, heptachlor and chlordane, all of which have been found in fish samples, particularly those from near centres of population. The Regulations do not permit these pesticides in fish at any level. This is anomalous since MRLs are set for dieldrin, heptachlor and chlordane in water, and, if present in water, these pesticides will bioaccumulate in fish because of their physicochemical properties. It would be advantageous, therefore, if a general MRL could be set for pesticides with a high bioaccumulation potential in fish and other seafoods.

PESTICIDE RESIDUES IN FOOD IN MILLIGRAMS PER KILOGRAM

Food Commodity	Pesticide	MRL	Total No. of Samples	Total No. with Residues	Total Free of Residues	No. 0–25% MRL	No. 25–50% MRL	No. 50–75% MRL	No. 75–100% MRL	No. Above MRL (Details)
Milk and Milk Products	DDT	1.25	245	12	233	11		1		
	Dieldrin	0.15		13	232			12		1 (0.2)
	Heptachlor	0.15		1				1		
Fish	DDT	1	166	39	127	39				
	Chlordane	NP		1	165					1 (0.002)
	Dieldrin	NP		61	105					61 (0.001–0.037)
	Heptachlor	NP		2	164					2 (0.001 and 0.008)
Milk Powder	..		7	..	7					
Molasses	..		3	..	3					
Dates	DDT	3	1		1					
Wine	Chlorothalonil	10	20	6	14	6				
Honey	..		8	..	8					
Custard	..		1	..	1					
Minced Meat	..		1	..	1					
Crispbreads	DDT	0.1	12	2	10	2				
	Fenitrothion	0·2		5	7	4			1	
	Heptachlor	0.02		1	11		1			
Barley	..		1	..	1					
Dried Beans	Endrin	0.1	4	2	2	1	1			
Rice	BHC	0.1	17	1	16	1				
	Pirimiphosmethyl	1		4	13	3				1 (5.7)
Baby Foods	DDT	M	50	2	48					
Biscuits	DDT	0·1	14	1	13	1				
	Fenitrothion	3		3	11	3				
Cheese	DDT	1.25	17	1	16	1				
	Dieldrin	0.15		4	13	4				
Cabbage	..		1	..	1					
Celery	DDT	7	7	1	6	1				
	Diazinon	0.7		1	6				1	
	Endosulfan	2		6	1	6				
Lettuce	Dichlofenthion	NC	3	1	2					1 (22)
	Endosulfan	2		1	2		1			
Beans	Endosufan	2	1	1			1			
Broccoli	DDT	7	1	1		1				
Bananas	Carbaryl	5	15	4	11	4				
	Dicofol	5		1	14	1				
Mandarins	..		6		6					
Strawberries	DDT	3	5	4	1	4				
Apples	..		10	..	10					
Grapes	DDT	3	5	3	2	3				
	Dicofol	5		2	3	2				
Pears	DDT	3	15	1	14	1				
Plums	DDT	3	5	1	4	1				
	Dieldrin	NP		1	4					1 (0.2)
Apricots	..		5	..	5					
Cherries	Endosulfan	2	5	1	4	1				
Oranges	..		15	..	15					
Rockmelons	DDT	3	9	1	8	1				
	Dieldrin	NP		1	8					1 (0.01)
TOTAL	..		675	124	551					

NP—not permitted in this commodity.

NC—not considered in Regulation A14.

M—mixture of foods.

D. Drugs and Pharmaceuticals

Samples received under this heading fall into two main categories—

(a) Dangerous drugs for destruction; and

(b) Drugs and pharmaceuticals for analysis.

Analysis is usually carried out on pharmaceuticals either to determine their correct scheduling under the Poisons Regulations or as a result of complaints about adverse reactions or contamination. A few legal samples are analysed in cases of alleged improper storage or supply of scheduled preparations; a staff member appeared in court on one occasion.

Nine complaint samples were received. One sample of hydrogen peroxide had a strength of 30 per cent instead of 30 volume (9 per cent) and burnt the user. A sample of contact lens cleaning solution which caused eye irritation was found to have a high pH compared with a control sample. Analysis of the remaining samples did not establish any reason for the complaints, which may have been due to individual sensitivities of the complainants.

One sample of tablets sold by a "Health" shop contained boron in an amount such that legally they should only have been available on a medical prescription.

Examination of an antibiotic suspension which caused a severe reaction in an infant revealed that it had been prepared by adding alcohol to the antibiotic powder instead of water.

E. Household and Industrial Chemical Products

A variety of chemical preparations was examined, usually to determine scheduling and labelling requirements, but in some instances as a result of complaints.

One "sealed" cockroach bait was found to have the bait material escaping from the container. One type of mosquito coil had a supporting "board" which contained a high quantity of asbestos. A sample of cleaner which claimed to be non-caustic was in fact strongly alkaline and should have been labelled as a poison.

Checks have been maintained on pesticidal sprays used by pest control operators. Of 97 samples analysed, 39 were not of the strength indicated, and two were of a different type of pesticide to that indicated.

Of 567 samples of paint and paint scrapings analysed, 130 were found to contain significant levels of lead. The problems of removing such paint from houses was highlighted in two instances. In one case, where it was suspected a child was still ingesting lead after removal of the paint, it was found that the dust in the ceiling contained a significant amount of lead and could have been falling from cracks in the ceiling. In the second case, soil around the house contained high levels of lead, presumably due to contamination with paint dust. The owner was concerned about contamination of fruit and vegetables grown in the soil. When lead paint is removed, care should be taken to collect all flakes and dust, and to dispose of it properly.

F. Toys and Other Children's Articles

A substantial number of toys was examined. These were checked for compliance with relevant Australian Standards and the Health Act.

Of the 500 examined, 48 contained excessive levels of lead in either paint or plastic components, while a further eight had constructional faults such as hazardous sharp points or edges, or they presented an ingestion hazard. Two ranges of children's jewellery examined were made from metal containing a high proportion of lead.

A range of novelty rubber erasers in a variety of shapes was examined following claims that some contained high levels of toxic metals. Only one sample contained excessive lead, which was in the paint on the surface rather than in the body of the rubber itself. Five pencils had high levels of lead in their external paint.

Nine samples of toy cosmetics were found to contain excessive amounts of lead, while six samples of modelling clay had high amounts of cadmium or chromium.

Following a complaint about the objectionable odour of a plastic toy (a book) traces of dichlorobenzene, xylenes, mesitylenes and cyclohexanone were found in the plastic.

One baby's dummy and four baby's rattles were found not to comply with the relevant Australian Standards.

G. General and Miscellaneous Matters Concerning Safety and Public Health

A variety of miscellaneous samples was received from Health Inspectors, hospitals, medical practitioners and other Government Departments.

An adhesive sanitary pad submitted was found to be contaminated by the pupal case of an insect. Examination of toilet paper following a complaint by an irritated consumer showed that contamination with sulphuric acid was at the seat of the problem.

An unusual core of a bladder stone was submitted for identification. It was a lump of material similar in composition to a gray building mastic. No information was available to suggest how such material came to be in the patient's bladder.

Investigation of a complaint regarding hydrochloric acid purchased for use in a swimming pool showed that it was not acid, but an algicide which had been labelled incorrectly.

Twenty suspected dog baits were examined, but no poison was found in any of them. Twenty-two samples of soil and vegetation were analysed following complaints of accidental or malicious poisoning of plants. Samples of bark and soil from one tree contained arsenic, and one sample of plant material contained 2,4-D, but no poison was found in the other samples. Grey powder on one sample was only a mould.

Other miscellaneous samples submitted included a syringe, fibreglass from a water tank, cigarettes, chocolate, carpet, sediment washing off a roof, a candle holder, baby feeding bottles, two pair of shoes, cigarette filters, plastic and rubbers for water tank liners, a kettle, a magnetic therapeutic device, a water filter, a proposed new plastic container for poisons, samples of linoleum, and various powders, liquids and plant material for identification.

Urea-formaldehyde foams used as insulation in houses and industrial premises continue to be a problem due to breakdown of foam. This breakdown results in the release of formaldehyde into the air space of the building causing irritation to the eyes and lungs of the occupants. Urea-formaldehyde is a suspected carcinogen and has been prohibited for insulation service in some countries. A number of private dwellings tested showed the presence of only very minute traces of formaldehyde vapour.

Some commercial premises which used urea-formaldehyde foam as a wall and ceiling insulant were found to have levels of formaldehyde approaching the NHMRC threshold limit value for industrial workplace exposures. Elevated levels persisted up to 6 months after installation of the foam. One building where the foam had been unsuccessfully installed for acoustic purposes proved uninhabitable.

Soil, from areas known or suspected to have been contaminated by arsenical pesticides, was again surveyed. Areas, once used for stock holding and treatment but now undergoing development for public use, were included in this survey.

The Chief Inspector of Drugs and Poisons submitted 13 samples of water, and one sample was found to contain dieldrin and DDT at concentrations of 0.04 and 0.01 micrograms/litre respectively and one other sample was found to contain 2,4,5-T at 0.1 micrograms/litre. Ten samples of foliage were received from the same source, two were found to contain methamidophos and two 2,4-D. One sample of figs was received for analysis of methamidophos but none was detected. Twenty-three samples of soils were received, seven were found to contain dimethoate at concentrations up to 11.3 milligrams/kilogram, 22 contained 2,4-D up to 1 500 milligrams/kilogram and 12 contained 2,4,5-T up to 36 mg/kg. Thirty-nine samples of soils were received from the Chief Inspector of Environmental Sanitation for estimation of chlorpyrifos, none was detected.

(2) ASSESSMENTS OF HAZARDS, PROBLEMS AND INDICATORS IN THE OCCUPATIONAL FIELD

This work, except for some clinical estimations, is performed in the Mining and Secondary Industries Section of the laboratory.

Occupational Health Assessments

The occupational health unit again made numerous visits to factories and workplaces using hazardous materials during the year. A considerable increase in asbestos measurement has occurred following media engendered speculation about the health risks of office blocks and public buildings which use asbestos for fire retardation. Insulating fibre identification queries totalled 91 for the year. Asbestos monitoring in public buildings insulated with asbestos or in workshops and factories using asbestos products has risen by more than 200 per cent on the previous year. Considerable resources of laboratory time have been associated with the monitoring of buildings which have been "stripped" of their previous asbestos insulation. Sixteen substations for a power distribution authority were monitored for this purpose. Poorly adhering crocidolite fibre was inspected and monitored in one building.

Monitoring continued in plants using isocyanates for urethane foam and plastics manufacture. Isocyanates and other chemical vapours and gases were also monitored in a foundry which was testing chemical resin systems to replace its traditional moulding cores. Solvent analysis was conducted on 35 paints. The use of solvents involved in printing and art work production is coming under increasing scrutiny following animal experimental findings of teratogenicity associated with ethyleneglycol ethers.

Seven plastics used in industrial processes were examined for potentially hazardous products evolved during their heat treatment.

Respirable lead measurements were made in a battery factory, a scrap metal reclaiming factory, a vehicle body works and a radiator works. Mercury vapour was measured in two industrial workshops and a private residence. In the latter, levels two and a-half times the NHMRC recommended industrial level were detected.

Dusts were monitored in a gypsum wall-board factory and in a copper mine. A number of other investigations involved phenols and sulphur dioxide in a pesticide factory, examination of dusts from hospitals and laboratories, and examination of synthetic silica used in metallurgical testing.

The testing of uranium excretion by workers in the uranium mining and processing industry continued, with 117 samples being analysed before the closure of the Mary Kathleen mine late in 1982.

Air tests were made for safe entry and welding procedures inside confined vessels using dicyclohexyl-ammonium nitrite as a corrosion inhibitor.

A number of compressed breathing-air supplies were tested for oil vapour, carbon monoxide and general air quality. Tests were made for the Metropolitan Fire Brigade on carbon dioxide absorbants for rescue equipment and air quality of self-contained breathing apparatus. Air movement and ventilation advice was provided for a hospital burns unit and an intensive care ward concerned with aerial transmission of MRSA. Other hospital work included surveys for waste anaesthetic gases (halothane and nitrous oxide) in hospital and dental operating theatres, and determinations of nitrous oxide in 40 venous blood samples.

A comprehensive occupational hygiene audit was conducted in a large electroplating workshop. A rubber tyre factory was investigated with regard to a number of hygiene hazards including carbon black, toluene, hexane and special rubber product additives.

Office photocopiers were tested for ozone production and plan printers for ammonia fumes. A significant number of office reprographic installations have poor or no ventilation and are of very poor ergonometric design.

Blood samples from occupationally exposed persons, including pesticide formulators, applicators and farmers are monitored for pesticide residues as part of the Occupational Health programme. This year, 452 samples were analysed for organochlorine pesticides. In addition, 30 samples were analysed for various pesticides. These data are presented in the accompanying table.

PESTICIDES IN OCCUPATIONALLY EXPOSED PERSONS (BLOOD)

Pesticide	No. Samples Analysed	No. Samples with Residues	Average Concentration (ng/g)	Concentration Range (ng/g)
Hexachlorobenzene	452	267	3·4	<1 to 48
DDT and Metabolites	452	389	13·7	<1 to 205
Dieldrin	452	170	3·8	<1 to 160
beta-HCH	452	20	0·1	<1 to 7
Heptachlor Epoxide	452	9	0·09	<1 to 15
Oxychlordane	452	1	..	4
Dichlorvos	3	..	..	..
PCBs	1	..	..	..
2,4-D	23	12	55	<1 to 310
2,4,5-T	23	9	6·7	<1 to 14
Methyl Bromide	9	9	6·2	3 to 14

< = less than.

Twenty-three samples of urine were analysed for 2,4-D and 2,4,5-T. A summary of results is presented below.

2, 4-D AND 2, 4, 5-T IN OCCUPATIONALLY EXPOSED PERSONS (URINE)

Pesticide	No. of Samples Analysed	No. of Samples with Residue	Average Concentration (ng/ml)	Concentration Range (ng/ml)
2,4-D	23	21	296	<1 to 2 800
2,4,5-T	23	19	22	<1 to 150

< = less than.

Two samples of sediment and one sample of water were received from the new Brisbane International Airport for analysis to determine if hazardous substances were present.

Safety in Mines

Dust monitoring for the Coal Mines Inspectorate of the Department of Mines increased following the appointment of a dust sampler for the West Moreton area. Roadway samples and respirable dust samples totalled 1 520 during the past year, a rise of 100 per cent on the previous year.

The 24-hour service for gas analysis has been utilized three times during the past year, to monitor colliery atmospheres that exhibited some deviation from "normality".

Other samples analysed for underground coal mine use included several hydrocarbon and aqueous solvents. Two samples of a phosphorescent paint material for emergency illumination were found to be safe, but were considered worthless since all phosphorescent properties were lost after several hours in total darkness. One diesel fuel conditioner was analysed.

The exhaust gases of diesel engines on vehicles intended for use in underground coal mines are analysed at the request of the Chief Inspector of Coal Mines. Sixteen units were tested during the year.

(3) FORENSIC SERVICES

The services to the Police Department and to the Coroner are provided mainly by the Forensic Chemistry and Toxicology Section of the laboratory; however, the services of other sections of the laboratory are co-opted as required.

During the past 12 months, significant changes were introduced which have improved efficiency, reduced the backlog of cases and enabled increased services in forensic chemistry to be provided to police investigators. These are the appointment of three additional chemists early in the year, the relocation of a chemist from the clinical group to the drug group, the occupying of redesigned areas in the laboratory and the provision of a separate area for receiving specimens.

The increasing number of cases being referred to the laboratory resulted in severe overcrowding of the laboratory vault. Case specimens and exhibits are kept until all possible need as evidence is past. A thorough survey of old material held was made and relevant police case officers were consulted as to whether the material was still required to be held in secure storage. As a result of this programme, which occupied three man-months, the destruction of exhibits relating to over 500 cases was authorized.

During the year, 50 man-days were required for court appearances by officers of the Forensic Section.

Breathalyser Services, Alcohol and Other Drugs in Motor Vehicle Drivers

The Police Department was supplied with approximately 1 600 bottles of prepared Standard Alcohol Solution for use in the operation of the Breathalyser. A one per cent random sampling of reagent ampoules supplied by a manufacturer was analysed to determine compliance with the specification. All of the ampoules tested complied with the specification requirements.

One thousand, four hundred and sixty-eight (1 468) specimens were tested under the provisions of the Traffic Act for the presence of alcohol and/or drugs. There has been a small decrease in the number of specimens submitted. This has been attributed in part to the legislation introduced in December which changed the prescribed level of alcohol in blood from 80 mg alcohol/100 ml blood to 50 mg/100 ml.

The distribution of analytical results for alcohol in blood was:—

Distribution	July to December, 1982	January to June, 1983
Less than 50 mg/100 ml ..	..	61
Less than 80 mg/100 ml ..	118	..
Between 50–80 mg/100 ml ..	..	32
Beween 80–150 mg/100 ml ..	201	157
Greater than 150 mg/100 ml ..	534	365
Total	853	615

This distribution shows the continuing incidence of higher blood alcohol levels in specimens received by the laboratory.

Forty-four of the specimens were examined also for the presence of drugs. However, of the specimens tested, only 21 were found to contain a drug or drugs. In view of the continuing importance of this work, more analytical time has been allocated to the improvement of drug screening techniques suitable for examining large numbers of blood samples.

The following drugs were detected:—

Oxazepam (5);
Phenytoin (3);
Diazepam (2);
Pentobarbitone (2);
Oxazepam/quinalbarbitone;
Oxazepam/methadone;
Methadone;
Diazepam/methadone;
Quinalbarbitone;
Pentobarbitone/amylobarbitone;
Nitrazepam;
Flunitrazepam;
Propoxyphene.

The results illustrate again the incidence of the hypnotic sedative, and anti-anxiety drugs, represented by the benzodiazepine and barbiturate groups, in the blood of drivers. The levels of these drugs were found to be frequently above the normal therapeutic range and to be accompanied by alcohol.

Illicit (Prohibited) Drugs

This category includes items suspected of being dangerous drugs or implements believed to have been used for their administration. The table below shows the number of specimens received and comparison figures for the previous two years:—

Type	1980–81	1981–82	1982–83
Cannabis and related products	625	1 056	1 013
Smoking utensils	699	938	1 480
Opiates and implements related to their use	326	457	426
Miscellaneous implements ..	..	..	201
Other dangerous drugs (including hallucinagens) ..	159	391	159
Miscellaneous tablets, powders and ampoules	59	66	332
Total	1 868	2 908	3 611

The upward trend in sample numbers has continued, but the rate of increase is much lower than that in the previous 12 months because of police involvement in the Commonwealth Games.

The following trends were noted for the various categories:—

(a) The number of cannabis and cannabis-related products examined remained at the same level.

(b) The number of smoking utensils analysed increased by approximately 60 per cent.

(c) The number of opiate samples and implements associated with their usage have remained the same.

(d) The number of hallucinogenic drugs submitted decreased.

(e) The number of miscellaneous tablets analysed increased fivefold. A study of tablet use by truck drivers was conducted during the year which contributed to this increase.

Post Mortem Investigations (Forensic Toxicology)

Visceral specimens from 358 post mortem cases were examined for the presence of drugs and poisons. The majority of these cases were examined at the request of Coroners to assist in their determinations of the possible cause of death.

Forty-nine cases were submitted by the Government of Papua New Guinea.

Drugs and poisons which could have had a significant bearing on the cause of death were found in specimens from 121 cases. Alcohol was found frequently in conjunction with these drugs and poisons.

Toxic levels of drugs were found in 107 cases. The following drugs were found with the number of cases shown in brackets. Barbiturates (20), tricyclic antidepressants (19), chloral (17), methadone (9), dextropropoxyphene (7), morphine (8). Other drugs considered to be present in toxic levels either singly or in conjunction with alcohol included paracetamol, chloroquine, quinine, pethidine, temazepam, salicylate and phenothiazines. The most common barbiturate was again pentobarbitone.

The number of cases involving poisons was 14. These included carbon monoxide, a gas of incomplete combustion (7); cyanide (2); strychnine (1); hydrocarbon propellants (2); paint thinners (1); and 1,1,1 trichloroethane (1).

Therapeutic levels of drugs were found in 56 cases. Again this year, benzodiazepines were detected in a significant number of cases.

The number of specimens of blood, urine and other biofluids, not associated with visceral specimens, tested from post mortem cases was 1 106. Five hundred and forty-nine of the specimens were obtained from the bodies of persons involved in fatal traffic accidents (350 blood, 199 urine). The blood alcohol level in 99 of these cases exceeded 150 mg alcohol per 100 ml.

A survey of all post mortem urine specimens was undertaken to determine the presence of drugs in addition to the normal examinations conducted on the samples. This survey was made to provide base line data. In only a few cases were drugs detected.

The lead content of 27 bone specimens was determined in connection with post mortem investigations.

Miscellaneous Forensic Chemistry

This year, two chemists have been assigned to the demanding area of forensic chemistry. The service now provided is significantly better than the part-time service which was all the laboratory could offer in previous years. The new service is gradually refining methods and has extended the range of testing into areas not previously covered by the laboratory. Police investigators have been quick to take advantage of the additional services.

Although the laboratory is equipped with a wide range of sophisticated instrumentation, which is regularly used in forensic examinations, there are times when it is necessary to call on the facilities of other laboratories. These are the X-ray Diffraction Spectrometer of the Mines Department and the Scanning Electron Microscope with X-ray microprobe facilities belonging to the Queensland Institute of Technology. This latter instrument has proved to be most valuable in solving a number of cases, and the laboratory expects to make much more use of this instrument in the future. The time is not far off when it will be necessary to purchase such an instrument for the laboratory.

The Police Department submitted 136 miscellaneous cases for forensic chemistry examinations. Twenty-five of these cases required the matching of soil samples. In 12 cases a positive soil match was made. Work is proceeding with a view to improving soil matching techniques, and some attention is being given to laboratory requirements for meaningful soil comparisons.

Work has commenced on the compilation of a collection of textile and other fibres for comparison with fibre specimens. Other sections of the laboratory have been able to provide samples for this project. Some cases involving fibre comparisons have been completed.

The suspected poisoning of dogs resulted in the submission of specimens in 24 cases. Strychnine was detected in four cases, while sodium fluoroacetate (1080) was found in two cases.

A number of beverages and foodstuffs were submitted in relation to suspected poisonings. The cases included—beer adulterated with hydrochloric acid, soft drink with 1,1,1 trichloroethane (cleaning fluid), and wine with ammonia.

In 11 cases involving wilful damage to property, sulphuric acid was determined in three cases, hydrochloric acid in two, paint remover in two, hydrocarbon oils in two and rust inhibitor containing phosphoric acid in one case. All these substances are highly corrosive and caused extensive damage to the property involved. Explosives were used in the other case and further work has been commenced to improve laboratory methodology for the analysis of explosive residues.

(4) CLINICAL SERVICES

For many years the laboratory provided a clinical drug and heavy metal assay service for medical practitioners and hospitals in Queensland which was not available elsewhere in the State.

The Royal Brisbane Hospital was provided with a range of modern equipment to service the Commonwealth Games. At the conclusion of the Games, arrangements were made with the Hospital to take over many of the clinical assays which the laboratory provided for the public. The Government Chemical Laboratory now handles only clinical drug specimens from the Health Department and legal services, or special assays which are not handled by the Royal Brisbane Hospital. This change occurred in November, 1982, and resulted in a decrease in clinical drug screens and assays from 1 146 in the July–November period to 204 in the period December–June.

The source of the specimens and the type of analysis requested is listed in the following table:—

Source	Drug Screens	Drug Levels	Trace Metals
Drug Dependence Clinic . .	2 585	. .	. .
Division of Occupational Health	. .	. .	516
Hospitals	393	219	310
Pathology Laboratories . .	282	310	208
Miscellaneous	104	42	95
Total	3 364	571	1 129

All of the specimens received from the Drug Dependence Clinic are screened for Drugs of Abuse. There has been a 68 per cent increase in the number of samples submitted by the clinic. However, the restructuring has enabled the laboratory to offer an improved service with a minimum backlog.

There has been a slight fall in the number of specimens examined for trace elements. The breakdown of determinations was as follows:—lead 644, arsenic 201, mercury 165, thallium 32, cadmium 14, silver 12, other elements 61. The other elements determined included copper, zinc, magnesium, aluminium, manganese, selenium, chromium and nickel.

Clinical specimens (blood, urine, etc.) are analysed for organic pesticide residues. The Assistant Director (Occupational Health) of the Division of Environmental and Occupational Health provides a clinical advisory and interpretative service to medical practitioners for these samples. Details of the samples received and type of analysis involved are listed in the following table:—

HUMAN FLUIDS (FOR CLINICAL SERVICES) FOR ORGANIC PESTICIDE RESIDUES

Pesticide Type	Blood	Urine
Organochlorine (OC)	40	3
Organophosphorus (OP)	18	Nil
Chlorophenoxyacid herbicides . .	15	19
OC and OP	6	Nil
Miscellaneous	*25	6
Total	104	28

*Miscellaneous include carbamates, pyrethroids and other classes of pesticides.

Water samples were submitted by the renal unit of the Princess Alexandra Hospital to determine their suitability for use in renal dialysis machines. A total of 57 samples were received during the year; 28 for trace metal analysis, and 29 for standard water analysis.

(5) NATURAL RESOURCES—INVESTIGATIONS

The Waters, and Mining and Secondary Industries section of the laboratory carry out investigations on natural resources.

Ores, Minerals and Hydrocarbons

In August, the Supervising Chemist of the Mining and Secondary Industries Section visited the Cloncurry Assay Laboratory to rationalize the analytical services provided by both organizations. From the beginning of 1983, all analyses for copper have been performed only at Cloncurry while samples requiring analyses for any other elements have been prepared and forwarded to our laboratory.

Samples of coal (504) have been analysed for the Queensland Coal Board; this number is down on previous years. Most analyses have been for ash, moisture and gross specific energy.

The number of samples submitted by the State Mining Engineer from hydrocarbon fields throughout the State was 65. These samples included condensate samples and also one connected with the possibly unique occurrence of hydrocarbons in thunder-eggs at Tamborine.

The laboratory participated in proficiency testing programmes organized by N.A.T.A. Analytical results for copper ores and cement obtained by the laboratory were in good agreement with the average of all determinations with the exception of one element which was outside the expected range. The reason for this is being investigated.

Cements and fly ash used in the construction of dams were submitted by the Water Resources Commission through their Materials Testing Laboratory. Samples (66) were received for chemical analysis and/or the determination of the heat of hydration.

The Works Department requested the laboratory's assistance to find the cause of the deterioration of the stonework in historically valued buildings. So far the project has been limited to the identification of extractable and efflorescence salts in the original and replacement stonework in one building.

In connection with the monitoring of the general environment, 41 samples of air-borne dust were analysed for their major chemical components.

Water Resources

The laboratory continues to provide analytical services to the Queensland Water Resources Commission. Samples are generally submitted for standard water analysis, and reports includes comments on suitability for domestic, stock and agricultural purposes.

A number of water samples were examined for the Mines Department in connection with both hydrogeological studies and petroleum exploration. Details are set out in the following table:—

NATURAL RESOURCES WATER SAMPLES

Sources	No. of Samples	Type of Analysis
Queensland Water Resources Commission—		
Surface Water Branch	1 015	Standard
Ground Water Branch	2 458	Standard
Queensland Mines Department—		
Geological Survey Office . .	270	Comprehensive*
Petroleum Exploration Bores . .	71	Standard

* Standard Water Analysis plus determination of trace anions and cations.

(6) MONITORING OF THE AQUEOUS ENVIRONMENT

Three sections of the laboratory are involved in this work:—Waters, Organic Pesticides, and the Spectroscopic group of the Mining and Secondary Industries section.

Water Quality—Tests for Clean Water

Once more the Water Quality Council submitted more samples than in the previous year, and continues to be the major client in this area. Most of the work is routine. It includes the determination of substances such as nitrogen, phosphorus, metals, and oil and grease that are commonly added to water bodies through the discharging of wastes. It also includes Biochemical Oxygen Demand, pH, colour, and turbidity measurements, substances reflecting the quality of the water. These measurements provide some of the data necessary for water quality management.

Queensland had heavy widespread rain in the April–June period of 1983. A result of this was a sudden sharp temporary increase in the number of samples from South East Queensland streams sent by the Water Quality Council for B.O.D.5 and nutrient determinations.

Eight thousand, four hundred and sixty-three samples, 1 379 more than last year, were analysed. Details of the analyses made on these are set out below:—

WATER AND BOTTOM SEDIMENT ANALYSES FOR WATER QUALITY COUNCIL OF QUEENSLAND

Type of Analysis	Number
A/Water—	
B.O.D.5, pH, Colour, Turbidity, Non-Filterable Residue	2 582
Organic Nitrogen	3 650
Ammonia Nitrogen	3 948
Nitrate plus Nitrite Nitrogen	3 934
Total Phosphorus	3 655
Orthophosphate	1 133
Trace Metals	466
Surface Active Agents	138
Phenolic Compounds	85
Oil and Grease	502
Hydrocarbon Material	489
Organic Carbon	1 158
Standard Analysis	285
B/Bottom Sediment—	
Oil and Grease	108
Hydrocarbon Material	105

In addition to the above, and as an aid to identifying areas of pollution, 273 samples of estuarine sediments were analysed. Each sample was analysed for moisture content, weight loss after ignition, particle size distribution and total mercury, copper, lead, zinc, chromium, nickel and cadmium.

During the year, the Water Section participated in the Proficiency Testing Programme on Water Analysis, conducted by N.A.T.A., for laboratories registered to carry out water analysis.

The Water Quality Council of Queensland has monitoring programmes to ascertain the degree of pollution by pesticides and some recalcitrant industrial chemicals.

Three hundred and ninety-five samples of water were analysed for organochlorine pesticides, polychlorinated biphenyls, various herbicides, chlorophenols and other trace organics either singly or in combination.

One hundred and sixty-nine samples of water from various creeks, dams, etc., were submitted by the Chief Inspector of Environmental Sanitation mostly on behalf of local authorities. Most samples contained low or undetectable levels of pesticides.

Waste Water, Industrial and Sewerage Effluents

A total of 1 629 samples of waste water and industrial and sewerage effluents was examined for the Water Quality Council of Queensland, and a further 124 for Local Authorities.

The determinations made for the Water Quality Council were for the common pollutants and indicators of the presence of pollutants, viz.: B.O.D.5, pH and non-filterable residues (1 131); nutrients (nitrogen and phosphorus) (242); surface active agents (39); phenolic compounds (14); oil and grease (79); trace metals (168) and standard water analysis (30). The determinations made for local authorities were for B.O.D.5, pH and non-filterable residues.

Twenty-eight samples from the Port of Brisbane Authority in connection with eight oil spill cases, were examined. The laboratory has built up considerable expertise in oil spill analysis using capillary column gas chromatography.

Indicators of Pollution of Water

Present and past pollution of waters is detected by analysis of "indicators". Indicators are various substrates which retain evidence of pollution over varying periods of time. The indicators consist of biota (fish, marine organisms, etc.), sediments and supernatant fluids.

In connection with this work, 222 samples of sediment and 41 samples of fish were examined for organochlorines and polychlorinated biphenyls for the Water Quality Council. Four samples of fish from a fish kill were analysed for the Chief Inspector of Environmental Sanitation. Physiologically insignificant residues of DDT and its metabolites were found in the fish samples. A physical causative agent such as cold water may have stressed the fish, thereby inducing bacterial or fungal infections.

(7) CONTRACT SUPERVISION SERVICES

The laboratory provides a testing and advisory service for State Government Authorities engaged in large-scale purchasing. Major clients are the State Stores Board, the Works Department and the Queensland Housing Commission. Assistance, when required, is given to the Police Department, Prisons Department and the Railway Department. Some large purchasing authorities, e.g. Main Roads, have their own laboratories for routine day-to-day work but refer to this laboratory for specialized assistance.

The principal fields of testing for the State Stores Board are textiles and related products, and chemical specialities. The principal service provided for the Works Department and Housing Commission is in the field of surface coatings. The Government Contracts section of the laboratory is the major section carrying out contract supervision work.

State Stores Board

The State Stores group has moved into a larger room vacated by the Clinical Toxicology and so gained much needed extra space.

Services provided for the Board include technical assistance and advice on the preparation of specifications for tenders. A considerable time is also used on product evaluation to expand and improve items on contract for government service needs.

The wool/polyester uniform specifications have been revised and updated. Performance clauses have been added to the specifications to quantify the requirements for washability, appearance and wear under normal service conditions. This project was carried out in conjunction with the Board, Police, Railways and Prisons Departments, the manufacturer and the Australian Wool Corporation.

The general range of textiles was examined to determine suitability and performance characteristics for the letting of contracts. Delivery samples were also examined on a regular basis to ensure that the quality of deliveries was maintained.

Apparel fabrics examined included polyester/cotton and cotton shirting material, materials for both summer and winter pyjamas, headcloth for uniforms, denims and drills for trousers, nappies, and wool/polyester uniform material. Non-apparel fabrics tested included wool blankets, a wide range of polyester/cotton sheeting, and bath towels and towelling products. The non-apparel fabric testing is concerned mainly with requirements for Hospital Standardized Linen.

The laboratory is represented on the Health Department working party investigating the smoke hazards of polyurethane mattresses. Tests have been conducted and advice given on problems relating to the flammability of mattresses and other bedding material. The study of flame-retardancy is quite complex, but it is anticipated that there will be a greater use in the future of flame-retardant textiles and other materials.

In conjunction with State Stores and the Adviser in Sterilizing Services a review was carried out of the range of detergents and disinfectants on government contract. The relevant specifications were revised to bring the range of these products on contract into line with modern commercially available products. Other products in the speciality cleanser field were also examined. These included hand and machine dishwashing detergents, bed pan cleansers, and carpet cleaners.

Laundry detergents and chemicals were examined before contracts were let. The compositions of formulations were checked and advice was given on the formulations and product trials. The laboratory is represented on the Inter-departmental Commodity Committee for Laundry Detergents and Chemicals.

A hospital laundry was visited to solve a problem with the alkaline break wash and the fabric softener used in the final rinse. Swimming pool chemicals, for use in school swimming pools, were evaluated. Advice was given on, and specifications revised for, floor polishes and cleaning equipment used as part of the cleaning systems recently introduced by the Works Department for the maintenance of government buildings.

Other items examined during the year included toilet paper, biros, pyrethrin insecticides, tea and correction fluids. The nature and number of samples examined during the year are listed in the following table:—

Nature of Samples	No. of Samples
Textiles—	
Apparel Fabrics	153
Non-Apparel Fabrics	62
Cleaning and Maintenance Products—	
Speciality Cleansers	82
Laundry Detergents	116
Swimming Pool Chemicals	55
Floor Polishes	3
Miscellaneous Items	85
Total	556

Surface Coatings

The surface coatings group is mainly concerned with the testing of decorative paints, but paints for other purposes are also examined. This year was the first full year during which both the Works Department and the Queensland Housing Commission have been participating in the Government Paint Committee (G.P.C.) scheme for their painting requirements.

The laboratory liaises with the G.P.C. Secretariat, Melbourne, and had a visit from the Assistant-Secretary during the year enabling discussion of the G.P.C. scheme and surface coatings. During the year, the staff visited three local paint manufacturers which hold G.P.C. accreditation and obtained valuable information about paint testing and manufacture.

A Krebs-Stormer Viscometer has been purchased. This instrument will enable us to determine an additional parameter on surface coatings and so to exercise stricter control on G.P.C. paints. The group participated in a Paint Proficiency Testing Programme arranged by N.A.T.A.

Thirty-seven tender samples, mainly decorative, but with some roof and structural paints, were submitted by the Works Department for complete analysis. X-ray fluorescence spectral scans were made of the pigments of these paints. The data obtained will enable us to identify more readily paints which have been applied to surfaces (paint scrapings). Four tender samples of linseed oil roof paints were also analysed.

Aqueous solvent type paints are environmentally more acceptable than solvent based paints. The extended use of water based paints, especially acrylic latex type paints, is being investigated by both the Works Department and the Queensland Housing Commission. The laboratory is providing control data for this project.

The Forestry Department submitted four samples relating to an investigation into the failure of paint applied to a species of timber (Northern Scentless Rosewood) which has a tendency to exude a gum or resin after it has been milled. The Police Department submitted a security marking pen for evaluation.

Approximately the same total number of samples were examined as last year. Samples totalling 1 959 were received from the Works Department representing a 30 per cent increase on the previous year, and 704 samples were received from the Housing Commission representing a decrease of 40 per cent on the previous year. Most of the samples conformed to the control data for the relevant G.P.C. Specifications.

The source and nature of the samples examined are shown in the following table:—

Source and Nature of Samples	No. of Samples	
	1981–82	1982–83
Queensland Housing Commission ..	1 178	704
Department of Works—		
Linseed oil paints	78	Nil
G.P.C. paints	1 399	1 912*
Tender samples and Special Paints ..	29	44
Paint scrapings	Nil	3
Sub-total (Works)	1 506	1 959
Queensland Water Resources Commission	4	Nil
Forestry Department	Nil	4
Other Departments	3	4
Sub-total	7	8
Total	2 691	2 671

* Includes some linseed oil roof paints.

(8) SERVICES TO THE COMMONWEALTH GOVERNMENT

The Department of Primary Industry and the Bureau of Customs, now administered by the Department of Commerce and Industry, are the two principal groups serviced by the laboratory on a contractual arrangement. Minor services are rendered to the Commonwealth Health Laboratories in provincial cities and the Armed Services. Close contact is also maintained with the Marine Branch, Department of Home Affairs and the Environment.

A total of 212 samples were examined for the C.S.I.R.O. for total organic carbon content of Rundle oil shale.

Commonwealth Department of Primary Industry

The programme arranged with the Export Inspection Service consisted of—

(a) Export Commodity Control of Dairy and Non-dairy Products;

(b) Organic Pesticide Residues; and

(c) Mercury and Arsenic in Egg.

(a) *Export Commodity Control of Dairy and Non-dairy Products*

This work is the responsibility of the Commerce group of the Government Contracts section. The main function is to analyse exported products to check that they conform to the requirements of the relevant Commonwealth Export Regulations, or the special requirements of importing countries.

There was an increase in the total number of samples analysed. The number of dried full cream milk samples dropped considerably. On the other hand, the number of dried skim milk samples increased and the number of pasteurized frozen liquid eggs more than doubled. The products examined are listed in the following table:—

NUMBER OF SAMPLES RECEIVED FROM COMMONWEALTH DEPT. OF PRIMARY INDUSTRY

Nature of Samples	No. of Samples		
	1980–81	1981–82	1982–83
Dairy Products—			
Butter	8	38	62
Ghee	17	59	31
Casein	169	187	170
Cheese	59	184	155
Cream, sour cream, dessert whips, custard	48	62	70
Dried full cream milk and lactogen	61	215	86
Dried skim milk	Nil	56	126
Ice-cream, ice-cream mix	26	17	54
Junex, meletone	73	1	..
UHT milk and related products ..	181	189	205
Yoghurt	17	27	35
Sub-Total	659	1 035	994
Non-Dairy Products—			
Canned fruits and fruit juices ..	17	17	30
Canned vegetables	4	10	..
Honey	126	195	167
Margarine	41	35	32
Pasteurised frozen liquid eggs ..	624	250	514
Shrimps (prawns)	15	19	1
Vegetable oil	5	2	3
Sub-total	832	528	747
Total	1 491	1 563	1 741

(b) *Organic Pesticide Residues*

These analyses are carried out as part of a nationwide survey conducted by the Pesticides Co-ordinator, Department of Primary Industry, Canberra. Samples of butter (107), cheese (118), dried milk and lactogen (43), honey (16), and eggs (197) were analysed for pesticide residues.

(c) *Mercury and Arsenic in Egg*

Mercury compounds were once used as a seed dressing for grain used for sowing, but their use is now discontinued. Organo-arsenicals are essential minor nutrients in poultry feed. In the continuing programme to check on trace mercury and arsenic content, 25 samples of eggs were analysed.

Bureau of Customs

This work is done by the Chemical Products section of the laboratory. Samples from the Bureau of Customs fall into a number of different categories. A range of imported goods is examined to determine the correct tariff classification for the assessment of import duty.

Glazed crockery was tested for leachable lead and cadmium, imported fish products were tested for mercury content, and the paint on pencils and artists' brushes was tested for lead and other toxic metals. Rubber erasers resembling food were submitted for determination of toxic metals. The Customs (Prohibited Imports) Regulations specify maximum permissible limits for these metals in the various goods mentioned.

Other samples were examined for the presence of prohibited substances, the determination of the Fertilizer Bounty, and for excise investigations concerning both licit and illicit alcoholic beverages and petroleum products.

The results of all work done for the Bureau are confidential and no details of particular samples may be given. The following table shows the number of samples received from the Bureau during the year.

Reason for Submission	1981–82	1982–83
Tariff	112	96
Import Quality Control—		
(a) Fish and edible marine products ..	154	135
(b) Glazed ceramic tableware	751	514
(c) Pencils, artists brushes, erasers, etc. ..	65	26
Prevention and detection of prohibited substances	17	33
Fertilizer Bounty Investigations	9	10
Excise Investigations	12	128
Total	1 120	942

During the year, the laboratory took part with laboratories of the Australian Government Analyst in three collaborative trials on the determination of mercury in fish.

RESEARCH AND PUBLICATIONS

No leading laboratory, even though engaged primarily in routine regulatory work, can function adequately without part of its resources being devoted to research and development. Some of our programmes are:—

Continuing efforts to isolate and identify pure cucurbitacins and to develop a reliable method of detection and measurement. Work of the Department of Primary Industries in maintaining commercial production of zucchinis free of this extremely bitter and poisonous substance could be greatly facilitated if such a method could be developed.

A review of the method of determining freezing point of milk has been undertaken as part of a working group of Committee DS/2 of the Standards Association of Australia and a revised draft method has been produced which is currently at the post public review stage.

A research study is under way involving the detection and estimation of the steroid, coprostan-3-beta-ol in sediments as an indicator of human faecal pollution of waterways.

Work is proceeding with the identification of aromatic fractions in hydro-carbon materials by gas chromatography. Correlation with results obtained by nuclear magnetic resonance show some discrepancies which warrant further investigation.

A method was developed for the separation of ascorbic acid (Vitamin C) and isoascorbic acid (erythorbic acid) by liquid chromatography. This method has proved very useful for analysis of legal samples of foodstuffs and has led to the successful prosecution of one supplier of fruit juice. Erythorbic acid, which is not a permitted ingredient, was detected and measured.

Work has commenced on a project to determine tetrahydrocannabinol in blood and urine. Tetrahydrocannabinol is the chief active ingredient in cannabis.

A comprehensive library of iso-electric focusing patterns of fish flesh is being collected to permit identification of fish species. Prosecutions for false description of fish species have, however, sometimes been clouded by the lack of clarity in the names in common usage of certain fish varieties.

Publications by members of the staff are:—

SHAW, G. R., and CONNELL, D. W. (1982). Factors influencing concentrations of polychlorinated biphenyls in organisms from an estaurine ecosystem. Aust. J. Mar. Freshw. Res., 33,1057–70.

SHAW, G. R., and CONNELL, D. W. (1983). Physico-chemical properties controlling polychlorinated biphenyl (PCB) concentrations in aquatic organisms. Accepted for publication in Environmental Science and Technology.

DIVISION OF HEALTH PROMOTION

Director: J. BRAGG

Demands for the Division's publications on various health issues reached new heights during the year, reflecting not only favourable media publicity for its activities but also the more vigorous approach it has adopted to make people more conscious of the need to adopt healthy lifestyles.

A kit outlining a series of exercises dubbed Biotonix by the Division prompted a record response for its media campaigns, with requests for 19 000 in a two-week spell. But the Division did not always wait for demand to generate from publicity. As an example, aware that head lice had become a widespread problem soon after the start of the school year, it circularized every primary school in the State with sample copies of its pamphlet on the subject and invited orders for more. Nearly all the schools responded, with requests for more than 40 000 copies for distribution to pupils and parents. To alert communities in North Queensland to the dangers of dengue fever, it printed and distributed 300 000 pamphlets and 7 000 full-colour posters on the subject through local authorities to accompany a media campaign.

The Division supplied artwork and printing services to other Divisions within the Health Department and to other State Government agencies, and met requests for its materials with permission to reprint them from health authorities in New Zealand, Papua New Guinea, Nauru, Massachusetts and Virginia (U.S.A.), Noumea and Malaysia, as well as other Australian States.

But in addition to its promotional material for distribution to the general public, community organizations, local authorities, schools, hospitals and medical and dental practitioners, the Division also embarked on other ways of putting across healthy lifestyle messages. For the first time it leased roadside billboards with health messages to be seen by travellers on the Gold Coast and David Low Highways, installed other messages on Brisbane City Council buses and at railway stations, and maintained a regular health feature service to several newspapers and magazines. It also organized drug awareness seminars, Aboriginal youth camps, and training lectures in health education principles and practices for professional and community groups, and provided study and assignment assistance to medical and other students.

Another new feature during the year was the introduction of fitness courses conducted by the Division for employees of commercial and industrial organizations and some State Government Departments.

The Federal Health Department urged health promotion units throughout Australia to follow the Division's lead and supplant Health Day with Health Week.

HEALTH MAINTENANCE SECTION

This section is committed to the promotion of specific health issues by prevention of communicable diseases, encouraging sound nutrition, maintaining fitness and general health, and minimizing environmental risk.

Immunization Campaigns

A media awareness campaign was conducted to encourage public response to the combined measles/mumps vaccine released in February. Included in this campaign was a rewrite of three separate pamphlets into one title, "Measles, Mumps, 'n Chickenpox".

Infectious Diseases Chart

This chart provides essential information on the more common communicable diseases, including immunity, prevention, risk of spreading, duration of illness, and need for professional consultation.

Home Safety Media Programme and Package

Seventeen thousand kits dealing with the subject of prevention of accidents to small children were distributed. These included two new posters created for the campaign: "How to Childproof your Home" and "Poisoning".

Nutrition

Four hundred and eighty-eight Year 5 students at Mount Isa were surveyed to determine their breakfast eating patterns. Results indicated that children need education in adequate breakfast nutrition. As a result of this programme, the pamphlet "Wake Up to Breakfast" was prepared.

"Biotonix" Exercise Media Programme and Kit

The need for those living a sedentary lifestyle to improve body tone and their health has been anticipated in the Biotonix media programme and kit. The kit consists of exercises adapted to unusual locations such as bathroom, office, kitchen, and in front of T.V. A second phase of the programme aimed at extending the range of exercises is planned for the coming fiscal year.

Health Week 1983 (5th–10th April)

State-wide activities by Local Authorities and Community Health Centres were co-ordinated with the Division's Brisbane promotions under the central theme, "Feel Great: It's Within Your Reach!"

The school competition attracted a record 3 780 entries, and 142 guests attended the World Health Day luncheon, the theme of which was "Towards a Healthier Australia". Brisbane activities at King George Square took on a carnival atmosphere with demonstrations in nutrition and exercise, blood-pressure screening (see separate reference in this report), static displays, and painting of "the longest health poster in the world".

Information Dissemination

Public lectures, T.V./Radio talks and lectures for selected professional audiences were presented on nutrition, epilepsy, diabetes, food and personal hygiene, and preparation for retirement.

A resource/consultancy role was established with organizations in areas of dental health, nutrition, sun and skin promotions, industrial safety, help for the disabled, epilepsy, problems of the aged, and tuckshop nutrition. Tertiary students, T.A.F.E. colleges and Teachers' colleges, were supported in course projects.

Publications (pamphlets, fact sheets, booklets, posters) were researched and developed on various topics including Ross River Fever, Pre-retirement, Down's Syndrome, Diabetes, Anorexia Nervosa, Sexually Transmitted Diseases, Asthma, and Epilepsy.

Pre-retirement Health

New initiatives are being developed to promote adequate health procedures before and during retirement. Interest beginning by involvement in Commonwealth Public Service seminars was developed for the 1982 Health Week theme, and is planned in a media awareness campaign to be released next financial year.

Sexually Transmitted Diseases

Two new initiatives concerning information dissemination for sexually transmitted diseases were implemented during the year. These included a telephone access recorded information service, providing information on S.T.D. symptoms and advising callers on sources of treatment. An average of 141 calls was recorded each week, producing an estimated 7 300 calls for the first year of operation.

A small advertisement for the first three months in a morning newspaper's "Personal" column attracted as many as 440 calls in a single week.

A second initiative was the display of posters on the subject in Brisbane City Council buses. These advertised the new combined male and female clinic in Adelaide Street, as well as the recorded information telephone number.

Response to these limited advertising forms, together with direct requests to this Division, indicate a substantial community need for S.T.D. information. The text for the S.T.D. leaflet has therefore been revised and expanded, and a new text prepared for a Herpes leaflet.

Blood Pressure Awareness

As part of Health Week activities, blood pressure screenings were conducted in King George Square. Third Year medical students, under supervision from Health Department practitioners, screened 593 people, of whom 62 were referred to their own doctors for further examination.

A follow-up system was devised to evaluate the effectiveness of the screening in promoting personal practitioner follow-ups for those with apparently high blood pressures.

Epilepsy Seminar

An all-day epilepsy seminar was held in October. This was attended by more than 100 people, and papers were presented by the leading medical, para-medical, legal, nutritionists and educationalists in Queensland.

SPECIAL PROGRAMMES SECTION

"Self Help" is the thrust of this section's approach to health education for Aboriginal and Islander people. Skills training and maximal involvement of the target group are seen as the foundation of this innovative approach. Despite considerable reductions in staff and funding levels in 1982–83, the implementation of this approach has continued with marked success. Furthermore, the allocation of a section officer to a permanent position based in Cairns has provided the Northern Aboriginal and Islander community with a more efficient and accessible health education service.

Training Programmes

In keeping with the philosophy of maximum involvement of Aboriginal and Islander people in the health education process, week-long intensive skills workshops were conducted for health workers from the Gulf, Central and Southern Regions of the State. The workshops, which were designed to improve the participant's communication, planning, teaching and evaluation skills, were held in Brisbane, Mount Isa and Cairns.

The workshops included sessions on the formulation of behavioural objectives, self-help health care around the world, assertion training, non-written forms of evaluation and the use of a wide variety of educational techniques in the delivery of health education. An experiential learning approach was adopted and emphasis placed on adaptation of methods to meet local needs and conditions. Evaluation of the workshops revealed significant increases in the confidence and competence of the participants to function as effective health educators.

A new concept for the training of public health nurses employed by the Aboriginal Health Programme was introduced in 1983. The idea of a two-week residential training course at the Gympie Forestry Training Centre developed as the result of discussions between officers of the Special Programmes Section, Aboriginal Health Programme and the Management Services Branches of the Departments of Health and Harbours and Marine. Prior input from these Departments had been separate, and it was considered that a joint effort would provide a more effective and useful training programme.

On-location training of health teams attached to the Aboriginal Health Programme was conducted on an individual basis as requested and officers provided input into tertiary courses—in particular, at the University of Queensland and the Queensland Institute of Technology.

Activities for Youth

A new format for the health camps run by the section was trialled this year. Rather than working with large groups in National Fitness Centres, smaller groups (15–20) participated in a "camp-out" in tents supplied by the Division. This approach was taken for the following reasons:—

- A better ratio of leaders to students;
- Skills in camping and bushcraft and self-reliance would be fostered;
- Local Aboriginal people could be used as leaders and could then be contact points for students.

Self-help Health Care Programmes

Periodic self-help health care sessions were conducted for individuals and groups within the community on request, e.g. groups of Aboriginal and Islander kindergarten teachers undergoing both initial and in-service training in Brisbane.

Resource Development

Evaluation of the Aboriginal health workers' teaching kit on family planning started this year. Results so far indicate popular acceptance and wide usage of this educational resource. Demand for the kit has also come from other States and Papua New Guinea.

HEALTH AND HUMAN RELATIONS SECTION

In order to achieve its objective—to assist all sections of the community and, in particular, young people develop healthy and discerning attitudes to all drugs—this section has greatly expanded its training role. Major initiatives have included:—

- Drug education seminars for selected teachers, youth leaders and service clubs;
- An educational programme for parents;
- Training programmes for staff and students at T.A.F.E. Colleges, Colleges of Advanced Education and the Queensland Institute of Technology.

Drug Education Seminars for Teachers

Drug education seminars for teachers were developed in response to recommendations made by the Royal Commission of Enquiry into Drugs in 1980. An inter-departmental committee representing the Departments of Health and Education was established to plan and implement the programme.

Stage I.—A pilot three-day residential training programme was held for 32 teachers selected from 23 secondary schools in September, 1982. "Follow-up" seminars have been generated in 14 of these schools, effectively reaching a further 170 teachers. Regular contact is being maintained with all participants, and a wide range of preventative drug education approaches have been introduced into the schools.

Stage II.—A second residential seminar was held for 30 teachers from Brisbane North Education Region in May, 1983, which addressed teachers' needs for drug education.

Stage III.—Further seminars are planned with the Education Department to give teachers throughout the State access to up-to-date training in drug education techniques and strategies.

Training for Youth Leaders

Increasingly, requests for assistance with drug education have been received from community groups with responsibilities to youth, e.g. the Scouting movement, church youth organizations, service clubs and Youth Council of Queensland.

Programmes

Stress Management Phase III was the major health promotion programme conducted in 1982–83. Hundreds of enquiries have been received from the general public, and numerous relaxation classes have been offered to meet the growing demand for help in coping with stress. More than 20 000 copies of the stress management booklet "Living With Stress" were distributed in 1982–83.

Special Programmes

A special allocation was provided to publicize the introduction of new labelling requirements on alcoholic beverages, which came into force on 1st January, 1983. One-and-a-half million leaflets have been produced for distribution.

Community Development Programme—North Coast Region

We have responded to a high demand for assistance with drug education for students and adolescents on the rapidly developing North Coast area. Stage I of the programme has consisted of the adaptation of the "school health camp" programme to meet the particular needs of the local schools—e.g. leadership selection and training: moral problems at school; personal development programmes; health and unemployment issues, etc.

Stage II of the programme is designed to increase community interest and involvement in the welfare of adolescents in the community. Local expertise is already being incorporated into the school programme, and local businesses and service clubs are assisting in the provision of resources and services.

School Camps—County Areas

The Healthy Lifestyles Programmes were conducted with schools and community groups in Townsville and Mackay in 1982–83 in response to requests from those areas. "At risk" groups of adolescents were recruited through local agencies, e.g. T.A.F.E. Colleges, C.Y.S.S. groups. Group leaders were selected from among teachers and project leaders, and were trained in drug education approaches by officers of this Section prior to the health camps.

COMMUNITY HEALTH EDUCATION

Community Health Education officers continued to meet regional health education needs, operating from the Community Health Centres of Townsville, Mackay, Rockhampton, Toowoomba, Gold Coast, Ipswich and Inala.

In general, these officers function as facilitators within the community. They help groups identify their health education needs, consult on planning and strategies, co-ordinate with specialist lecturers, and over-see implementation and evaluation. Their role also includes actual delivery of a programme, as appropriate.

INFORMATION SERVICES

Large Displays

The Division's large display involvement must be considered among the forefront in the Public Service.

For the R.N.A. Show in August, 1982, the Division supported the Commonwealth Games with a theme of "Get That Golden Feeling" which emphasized personal involvement in health. The major feature was a computer-operated booth that automatically registered a person's height, weight and pulse upon entry. Over 20 000 people measured these aspects of their own health on individual cards provided.

For the Telegraph Home Show the Division chose to support nutrition in the form of healthy breakfasts.

The Division's country show circuit was increased to 12 this year, attracting an estimated 200 000 people, with six additional requests already on the books for next year.

Campaigns

The Division has been involved in over a score of multi-faceted campaigns this past year. These range from the extremely large multi-media State-wide Biotonix campaign to small, regional immunization campaigns. The Division has been evolving from a passive server of requests to an active, assertive campaigner, able to quickly reach the entire community with meaningful productions.

Publications

The Division has begun a two-year programme aimed at the rationalization of all publications. The first phase has been to examine existing productions to establish that they meet the current needs of the community. To date, 14 publications have been or will be discontinued, eight have been amalgamated into three, four new productions have been produced and three others upgraded. The second phase will investigate the various topics, demand and related target groups. Using this criteria, guidelines will be drawn up to standardize publications as much as possible. This should provide a better quality and quantity response for a limited budget.

Films Section

Charitable church organizations, youth groups and many other associations have utilized our film service to reinforce their efforts to encourage better habits and health styles within the community. During the year, the number of borrowers totalled 5 351; number of films loaned 12 463; number of screenings 20 754; and audience 556 469.

ART SECTION

The resources of the Art Department are committed to respond to the publication/display needs of the Health Department as well as supplying intra-divisional requirements.

In spite of fluctuations in staff levels, the section has maintained a heavy work schedule and supplied finished or updated art work for 26 pamphlets, nine booklets, four "On the Go" publications, two AMA bulletins, 25 posters, seven stickers, 60 graphics, newspaper advertisements and smaller quantities of resource material for in-house use.

The display section has produced work for 16 small displays, one Home Show and one RNA Show, and assisted with 13 country shows. Many of the publications and smaller displays were for other Divisions and organizations.

EDITORIAL SECTION

Existing publications were revised during the year, and new publications were researched and written with the assistance of the Division's consultants.

This section also edited resource material for Health Education programmes as well as publications providing specialized information for the medical profession and publications for other Divisions.

A vital part of the section's work is the provision of accurate health material for newspapers, magazines, T.V. and radio.

PAMPHLET DISTRIBUTION

During the past 12 months, 2 346 277 pamphlets were distributed through the following agencies:— Schools 407 935; Hospitals 221 300; Departments 738 137; Professional 199 390; Local Authorities 289 180; to public through dispensers 490 335.

In addition, the Division produced 290 232 copies of booklets; 66 220 posters; 100 000 poison charts; 180 000 copies of the magazine "We Care" and 26 000 of the newsletter "On the Go"; 300 000 dengue fever pamphlets for North Queensland; 16 870 Vietnamese language pamphlets; 245 000 specialized publications (mostly dental); 36 600 stickers and other printings for Health Week; plus 426 705 printings (including cards, stickers, pamphlets, charts, flash cards, posters, booklets and covers) for outside bodies.

LEGISLATION 1982–1983

Hospitals Foundations Act 1982—This Act provided for the establishment and incorporation of bodies to hold property for and apply property to a continuing object within or associated with hospitals, to make provision with respect to the administration of those bodies and for related purposes. The Bill received Royal Assent on 6th October, 1982, on which day sections 1 and 2 came into operation. The remaining sections of the Act were proclaimed on 18th December, 1982.

Hospitals Act Amendment Act 1982—No. 1—This amendment to the Act exempted Hospitals Boards from certain laws governing the use of land and buildings, etc. The Bill received Royal Assent on 6th October, 1982. Proclamation was not required.

Health Act Amendment Act 1982—Provided for amendment of the Health Act in relation to Notifiable Diseases, Venereal Disease, Private Hospitals, Nursing Homes, Camping Grounds, Pest Control Operators and the Queensland Radium Institute. Royal Assent was given on 3rd December, 1982, on which day sections 1, 2, 3, 34, 35, 36, 37 and 38 came into operation. The remaining sections 4 to 33 inclusive of the Act were proclaimed on 12th March, 1983.

Hospitals Act Amendment Act 1982—No. 2—This amendment to the Act provided for the inclusion of two new sections relating to the establishment of the positions of Chief Nursing Officer and Acting Administrator under the provisions of the Act. It also amended a number of sections relative to the training of students in Hospitals; Regulations pertaining to the Auditor-General and the tabling of Regulations and other Subordinate Legislation; the election and appointment of Board Members in special cases; contracts and amending a number of areas in respect of the financial provisions including various machinery amendments. Royal Assent was given on 3rd December, 1982. Proclamation was not required.

Ambulance Services Act Amendment Act 1983—This amendment to the Act provided the St. John Ambulance with the authority to conduct the teaching of first aid and the provision of first aid services, with or without fee, at sporting events, prescribed shows, prescribed functions and other prescribed public gatherings. The Bill was assented to on 22nd April, 1983, on which date sections 1 and 2 came into operation. The remaining sections of the Act have not been proclaimed as at 30th June, 1983.

Hospitals Act Amendment Act 1983—This amendment to the Act authorized Hospitals Boards, subject to Governor in Council approval, to lease land for a period not exceeding 75 years. Royal Assent was given on 22nd April, 1983. Proclamation was not required.

SUBORDINATE LEGISLATION—1982–1983

REGULATIONS UNDER—

Health Act 1937–1981

(i) **Amendment of "The Poisons Regulations of 1973"—**

(a) Amendment of the Regulations to allow for the use of the drug "Amidopyrine" by Veterinary Surgeons. (Gazetted 28th August, 1982)

(b) This amendment increases fees payable for licences in accordance with instructions from the Treasury Department. (Gazetted 2nd October, 1982)

(c) Amendment of Schedules 4 and 6 of the Regulations to allow cattle breeders ready access to specified substances which promote the growth of animals. (Gazetted 11th December, 1982)

(d) Amendment incorporating principles recommended by the National Health and Medical Research Council for the control of various drugs and poisons. (Gazetted 5th March, 1983)

(ii) **Amendment of the "Pest Control Operators Regulations 1977"—**

Amendment increasing fees payable for an application for a licence (Regulation 3) and renewal of a licence (Regulation 5). (Gazetted 27th November, 1982)

(iii) **New Regulations titled Mosquito Prevention and Destruction Regulations 1982—**

These Regulations replace The Mosquito Prevention and Destruction Regulations, 1942, considered to be deficient, in law, in a number of aspects and increase the maximum penalty for an offence against the Regulations. (Gazetted 2nd October, 1982)

(iv) **Amendment of the Sanitary Conveniences and Nightsoil Disposal Regulations—**

To correct the spelling of the word "boarding" where it appears in Regulation 26 (h). (Gazetted 11th December, 1982)

(v) **New Regulations titled Nursing Homes Regulations, 1982—**

These Regulations replace The Convalescent Home Regulations, 1963 which have proven inadequate in some areas and give statutory force to requirements for better patient care and are more specific with staffing requirements, hygiene principles, fire safety and numerous matters relating to patient care. (Gazetted 30th October, 1982)

(vi) **New Regulations titled Refuse Management Regulations 1983—**

These Regulations replace the Refuse Management Regulations 1977 and make a number of changes which better suit requirements following a review of the old Regulations after approximately five years of operation. (Gazetted 14th May, 1983)

Chiropodists Act 1969–1975

Amendment of "The Chiropody Regulations, 1970"—

To add the words "in addition to annual licence fee" to the prescribed charge for restoration of a name to the Register. No change is made to the amounts of any fees payable. (Gazetted 7th August, 1982)

Ambulance Services Act 1967–1975

(i) **Amendment of "The Ambulance Services (Financial Arrangements) Regulations of 1967"—**

To enable Ambulance Committees to invest from General or Loan Funds "on the security of a commercial bill of exchange accepted by a bank". The amendment followed an amendment to section 21 (Authorised Investments) of the *Trusts Act* 1973. (Gazetted 7th August, 1982)

(ii) **Amendment of the Ambulance Services (Fees and Allowances to Members of State Council, Members of Committees of State Council and Members of the Appointment Board) Regulations of 1977—**

Increasing fees payable to Chairman and Members of Boards and Committees. (Gazetted 16th October, 1982)

Radioactive Substances Act 1958–1978

(i) **Amendment of "The Radioactive Substance Regulations, 1961"—**

To enable the conversion of expression of quantities or radiation dose equivalent used in the Regulations to the appropriate metric units. (Gazetted 28th August, 1982)

(ii) **Amendment of Regulation 18 (1) of "The Radioactive Substance Regulations, 1961"—**

To provide exemption for research workers and certain students from the need to hold a licence to possess and use an irradiating apparatus whilst carrying out or performing research, work or experiments under the direct supervision of a licensee. (Gazetted 23rd April, 1983)

(iii) **Amendment of "The Radioactive Substances Regulations, 1961"—**

Increasing the prescribed fees payable for a licence or renewal of a licence to deal with radioactive substances. (Gazetted 27th November, 1982)

Physiotherapists Act 1964–1981

(i) **Amendment of "The Physiotherapy Regulations, 1965"—**

Increasing the allowances payable to the chairman and members for attendance at meetings of the board. (Gazetted 21st August, 1982)

(ii) **Amendment of "The Physiotherapy Regulations, 1965"—**

In respect of qualifications obtained overseas which may be recognized for registration as a Physiotherapist in Queensland. (Gazetted 18th September, 1982)

Hospitals Act 1936–1981

(i) **Amendment of the Public Hospitals (Fees and Charges) Regulations 1981—**

Increasing the charges payable for accommodation and nursing services and outpatient services for certain defined classes of patients. (Gazetted 28th August, 1982)

(ii) **Public Hospitals (Fees and Charges) Regulations 1981—**

New Regulations to replace from 1st November, 1982, all existing Regulations relating to charges payable for accommodation and treatment of patients in public hospitals. (Gazetted 23rd October, 1982)

(iii) **Repeal of existing Regulations and insertion of new Regulation—**

To provide for a revised Schedule of fees and charges for dental services at Public Hospitals. (Gazetted 16th October, 1982)

Nursing Studies Act 1976–1978

Amendment of Nursing Studies Regulations 1980—

To allow applicants of mature age who do not have the prescribed educational entry requirements to enrol at accredited schools of nursing. (Gazetted 13th November, 1982)

Cremation Act 1913–1978

Amendment of Cremation Regulations—

Increasing the fee payable to the Department of Health for the issue of a Permission and Certificate to Cremate, Form C, by a Medical Officer in full-time employment of the Department of Health or a Hospitals Board. (Gazetted 4th December, 1982)

Food Act 1981

Amendment of the Food Standards Regulations 1982—

To correct some technical errors in the original printing of the Regulations. (Gazetted 25th December, 1982)

BY-LAWS UNDER—

Occupational Therapists Act 1979

Amendment of the Occupational Therapists By-laws 1981—

Relating to the payment of allowances to the Chairman and members for attendance at meetings of the Occupational Therapists Board of Queensland or of an Advisory Committee to increase the rates of allowances payable. (Gazetted 3rd July, 1982)

Pharmacy Act 1976–1981

(i) **Amendment of By-laws relating to fees payable to the Board—**

Increasing the fees prescribed for registration as a pharmacist and the annual licence fee. (Gazetted 28th August, 1982)

(ii) **Amendment of By-laws—**

Waiving fees payable to the Board for the next ensuing year by a person seeking registration to commence on or after the first day of December, in any year and by those pharmacists who attain the age of 70 years. (Gazetted 2nd July, 1983)

Dental Act 1971–1973

(i) **Amendment of "The Dental By-laws, 1971"—**

To provide for a revised list of fees payable to the Dental Board of Queensland for registration and associated purposes. (Gazetted 2nd October, 1982)

(ii) **Amendment of "The Dental By-laws, 1971"—**

Relating to the form of application for registration as a dentist. (Gazetted 2nd July, 1983)

Psychologists Act 1977

Amendment of Psychologists By-laws 1978—

To provide for an amended schedule of fees payable to the Psychologists Board of Queensland for registration, renewal of licences and associated purposes. (Gazetted 23rd October, 1982)

Speech Therapists Act 1979

Amendment of the Speech Therapists By-laws 1982—

To delete the proviso appearing in Part I of the First Schedule under which the Speech Therapists Board was required to waive the annual licence fee for the next ensuing year after registration in respect of all registrations effected on or after 1st October. This amendment ensures that all registered speech therapists pay the annual licence fee in the year following registration. (Gazetted 11th December, 1982)

Medical Act 1939–1981

Amendment of the Medical Board of Queensland Advertising By-laws 1981—

To control advertising by medical practitioners, specialists, partnerships, associations or medical companies on envelopes used in respect of their practices. (Gazetted 2nd April, 1983)

ORDERS IN COUNCIL UNDER—

Ambulance Services Act 1967–1975

(i) Authorizing the Normanton Committee Voluntary Auxiliary under section 47 of the Act, to carry on ambulance transport of patients to the Normanton Hospital and from the Hospital to the airport. (Gazetted 28th August, 1982)

(ii) Authorizing State Wide Air Charter and its subcontractors to carry on Ambulance Transport for the purpose of performing its or their obligations pursuant to or in accordance with a proposed agreement between the State of Queensland and State Wide Air Charter. (Gazetted 30th October, 1982)

(iii) Altering and declaring the boundaries of the Toowoomba Ambulance Transport Brigade Area in accordance with section 18 (1) (a) of the Act. (Gazetted 26th March, 1983)

Health Act 1937–1981

(i) Authorizing Dr W. R. McWhirter to conduct a research project in pursuance to section 154M of the Act. (Gazetted 11th December, 1982)

(ii) Authorizing Dr A. S. Coates to conduct Scientific Research and Studies in pursuance to section 154M of the Act. (Gazetted 22nd January, 1983)

(iii) Authorizing Dr L. D. Gilsenan to conduct Scientific Research and Studies in pursuance to section 154M of the Act. (Gazetted 26th February, 1983)

(iv) Authorizing Professor D. Ferguson to conduct a research project in pursuance to section 154M of the Act. (Gazetted 18th June, 1983)

(v) Pursuant to section 154I of the Act, declaring the Queensland Radium Institute to be a Board within the meaning of section 5c of the *Hospitals Act* 1936–1982 and the governing body of a hospital within the meaning of section 21 (1a) (b) (v) of that Act. (Gazetted 25th December, 1982)

PROCLAMATIONS UNDER—

Hospitals Foundations Act 1982

Proclamation made in pursuance of section 2 (2) of the Act appointing 18th December, 1982 as the date on which the provisions of the Act shall commence. (Gazetted 18th December, 1982)

Health Act Amendment Act 1982

Appointing 12th March, 1982, as the day on which sections 4 to 33 inclusive shall commence. (Sections 1, 2, 3, 34, 35, 36, 37 and 38 commenced on the date of Royal Assent). (Gazetted 12th March, 1983)

NOTIFICATION UNDER—

Health Act 1937–1982

Notification declaring Acquired Immune Deficiency Syndrome (AIDS) to be a Notifiable Disease under the said Act. (Gazetted 2nd July, 1983)

ACKNOWLEDGMENTS

I have much pleasure in recording my gratitude to all members of the staff for their loyal service, support and conscientious attention to duty.

Acknowledgment is also made to other Government Departments for their co-operation, particularly the Government Statistician and his officers who, as usual, have been of great assistance in preparing the vital statistics section of this report and have supplied other statistical details from time to time throughout the year.

Every assistance has been given by the President, Dr B. E. Todd, and members of the Council of the Australian Medical Association, Queensland Branch, and I am indebted to them for the help they have given me.

I would also thank the members of the various expert committees who have given so freely of their time and advice.

I desire to acknowledge the co-operation I have received from the Medical Superintendents of the base hospitals, and would particularly thank Dr E. D. O'Callaghan, Executive Director of Medical Services, Mater Misericordiae Public Hospitals, Dr C. B. Campbell, Medical Superintendent, Royal Brisbane Hospital, Dr P. Grant, Medical Superintendent, Royal Children's Hospital, Dr J. Campbell, Medical Superintendent, Royal Women's Hospital, Dr J. G. Golledge, Medical Superintendent, Princess Alexandra Hospital, Dr K. P. Kennedy, Medical Superintendent, The Prince Charles Hospital, Dr J. V. Griffin, Medical Superintendent, The Queen Elizabeth II Jubilee Hospital, for the assistance they have given during the year.

P. G. LIVINGSTONE.

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